Modern Packaging

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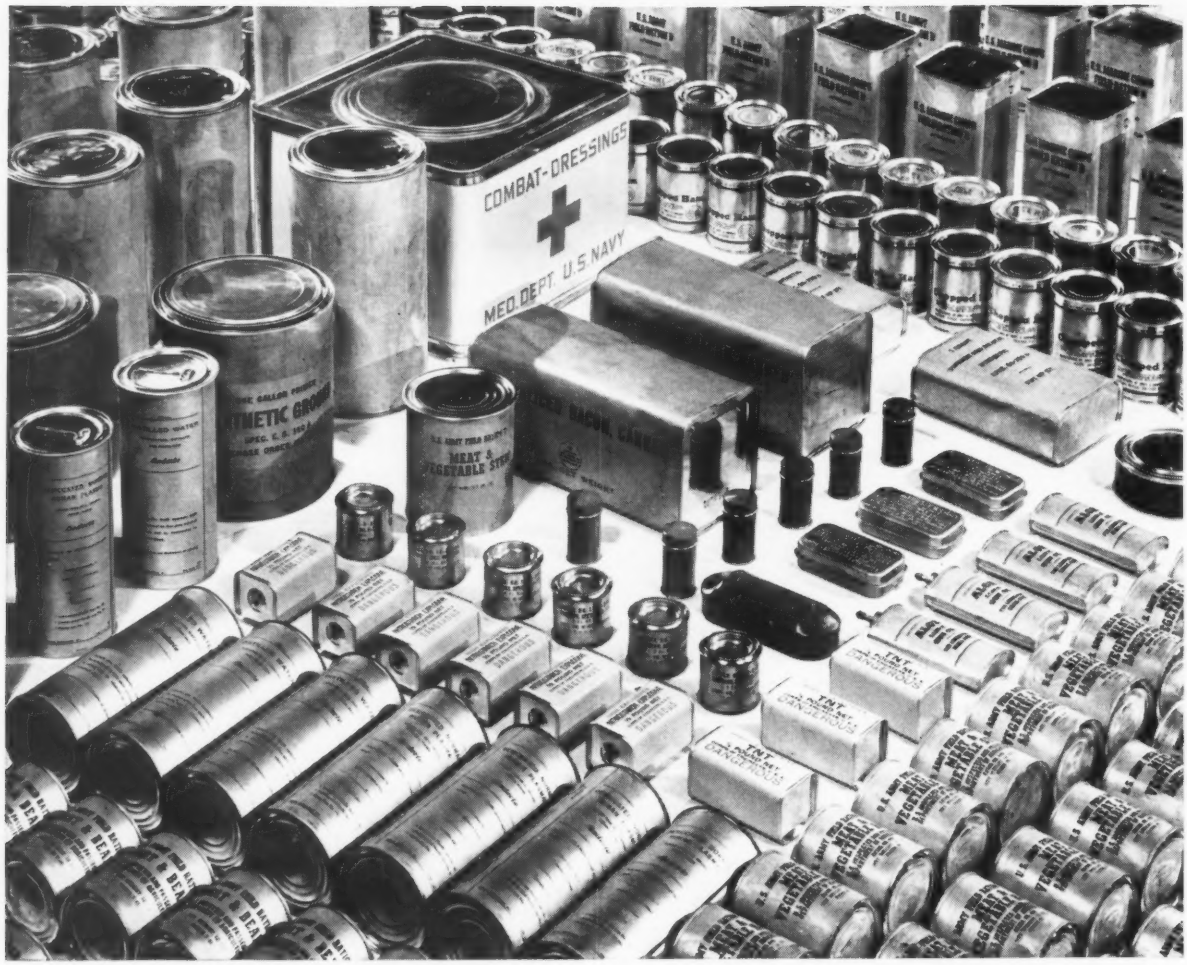


SOME "NON-SECRET" WEAPONS THE AXIS WOULD LIKE TO HAVE

Study the Labels on the cans and packages in the picture above.

On some of them, you'll notice "Army Sliced Bacon, Canned . . . U. S. Marine Corps Field Ration D . . . U. S. Army Meat and Vegetable Hash . . . TNT Dangerous, Corps of Engineers."

There's a container for dried human blood in the picture, too. For transfusions in the field. Another to house a delicate motor on anti-aircraft guns.

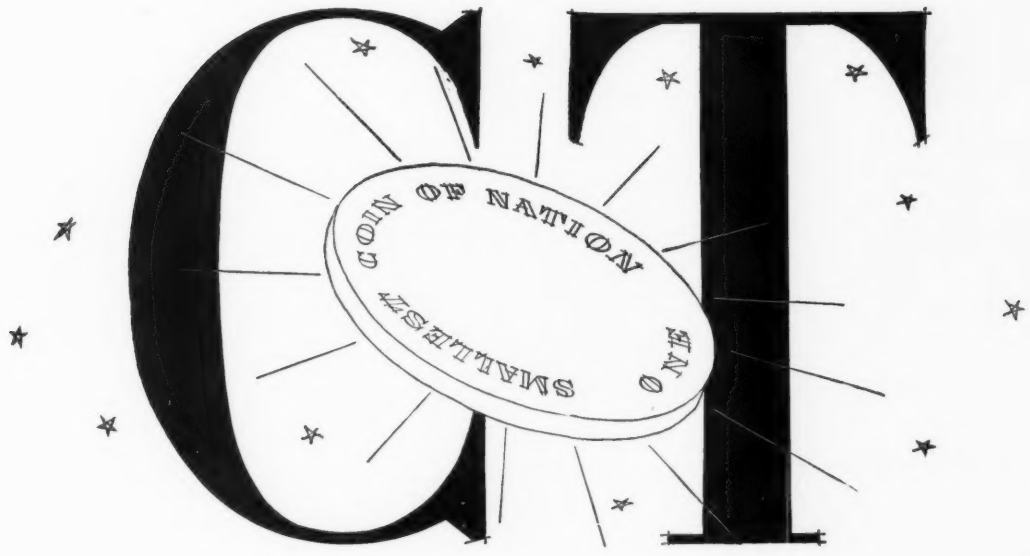
And while you'll be interested to know that these articles are some of the many defense items the containers for which are made by the can-making and packaging industries, their significance goes far beyond this simple fact.

For they are weapons. "Non-secret" weapons, if you will. And every country has them. *But the Axis would like to have ours.* Do you realize why?

The industrial resources that produced these "non-secret" weapons are the largest in the world. The Axis needs those resources.

It needs the men . . . the machinery . . . the skill . . . the research that make the quality and the quantity of these weapons possible. It needs the energy of the free, unregimented economy which produced these weapons.

We Americans can congratulate ourselves that the Axis hasn't these resources . . . that we—not the Axis—have built the greatest packaging and can-making industries in the world . . . that we are now using the sinews of these industries to resist aggression. American Can Company, 230 Park Avenue, New York, N. Y.



SMALLEST COIN of the nation is the penny or cent . . . C T. It is money reduced to the lowest common denominator. Cash in its simplest medium of exchange. Reaching out for a new, or different, simile we found that the C T (coin) and the C T (cap) had several things in common besides the same abbreviation.

Once . . . *continuous thread* caps were made with every conceivable size, shape and pitch of thread. They required more metal to make, more time in which to make them. Then, Phoenix redesigned the *continuous thread* cap. Decreasing its depth to conserve metal. Simplifying its construction to reduce the processes of manufacture. Standardizing it to one thread to insure perfect fit. That was in 1922.

Twenty years have passed. During these interesting years, packaging tried to out-beautify and out-glamourize itself. The object was sales, but the result inevitable: An ever-widening variety of new materials and methods, as well as package sizes and styles. Now the pendulum swings to the other extreme.

But even when packages assumed their strangest shapes and strongest shades, certain important details retained their simple, standard construction. The *continuous thread* cap was one of these. Furthermore, while packaging was at its giddiest and gaudiest, it not only maintained, but actually increased its popularity. Today, it is the most widely used closure of all.

Reasons for the continued popularity of the *continuous thread* cap are obvious: It is standard throughout the industry. It is economical in the use of materials. It seals a wide variety of products. It is easy to apply by hand or machine. It is positive of seal and reseal. And, even the least closure-wise consumer knows how to remove it. All of these advantages were practical yesterday. They are doubly so today.

But our simile . . . we almost forgot that. The C T Cap (the Phoenix interpretation of the *continuous thread* sealing principle) is sealing reduced to "the simplest common denominator." We've had to stretch our imagination to make this simile. But it needs no stretch of imagination to appreciate, and profit by, the simplicity of the Phoenix C T Cap.

PHOENIX METAL CAP CO.

2444 West Sixteenth Street
CHICAGO

3720 Fourteenth Avenue
BROOKLYN

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Modern Packaging

FEBRUARY 1942
VOLUME 15 NUMBER 6

MARCH

What kind of displays are selling the most goods these days? What are the best stoppers; are seen by the most people per unit of cost? In the March issue, Modern Packaging will bring you answers to these questions, accompanied by a pictorial review, of vital significance to you and your own display problems.

Also in the March issue—latest information from Washington as it affects packaging—a discussion of a subject uppermost in everyone's mind, "Will Standardization Kill Individuality?"

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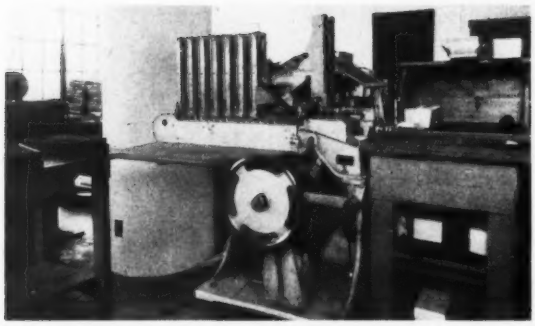
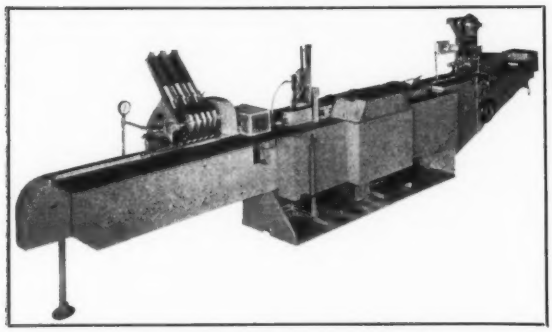
CARTONING HAS COME A LONG WAYS SINCE 1918

Just ask ***THE AMERICAN SAFETY RAZOR CORPORATION*** *makers of*



1918 this was the last word in cartoning machines 24 years ago . . . matching the automobiles of the time in speed and efficiency. It turned out nearly 50 cartons of Gem Blades every minute!



1942 What a difference! This model is modern, streamlined with no cams, much fewer reciprocating motions and a continuous loading mechanism—all of which make modern Redingtons smoother, quieter, much faster and more efficient. The short count detector and skip carton mechanism guarantee correct count.

20 MACHINES IN 24 YEARS

. . . that's the total ordered by The American Safety Razor Corporation since those historic days of 1918 when the first Redington cartoning unit came on the job. Cartoning machines and methods have come a *long way* since, as the pictures at the left of 1918 and 1942 models so clearly reveal.

Unit #1 had a speed of *less than 50* five-blade cartons a minute. A modern machine producing the five-blade carton turns out *more than four times* this amount! Unit #20 is a *combination* machine for the *new Star* Double Edge 5-blade package . . . first cartoning, then Cellophane wrapping and applying easy opening tape. It's *quickly adjustable* for handling their 3-blade carton, too.

This 1942 model Redington (pictured at the left) has *many* engineering features and *improvements* incorporated in it that the 1918 model never had. Perhaps we can help you modernize your packaging methods, too?

F. B. Redington Co. (Est. 1897) 110-112 So. Sangamon St., Chicago, Ill

REDINGTON PACKAGING MACHINES ★

for CARTONING • WRAPPING • SPECIAL PACKAGING

WAR

this too, shall pass away

Another good thought passed on by

KVP

"The World's Model Paper Mill"

MAKERS OF

FOOD PROTECTION PAPERS

KALAMAZOO VEGETABLE PARCHMENT COMPANY

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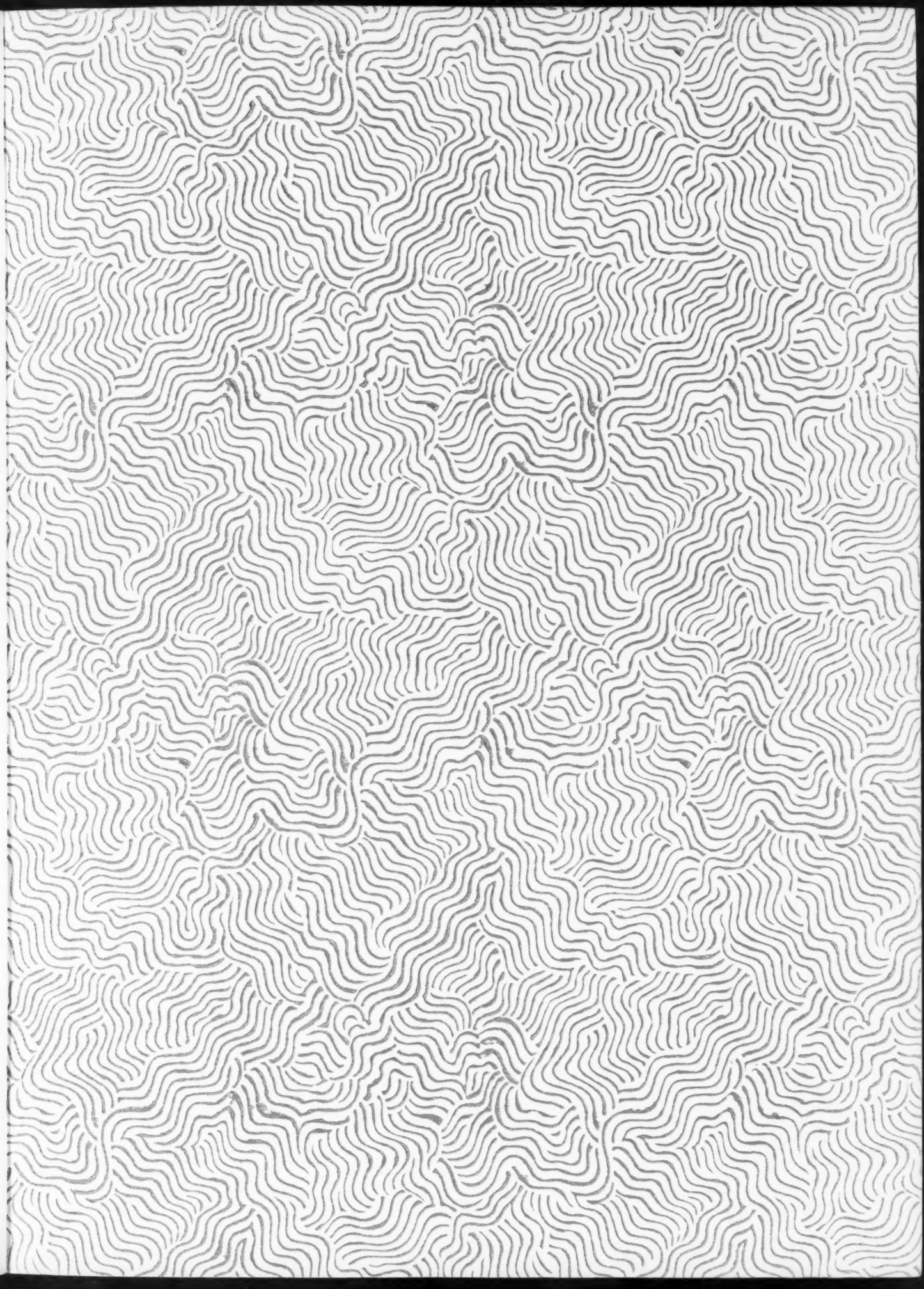

ENAMELAY

— 286-AE —

Our February Suggestion

Now more than ever before, it is necessary to have strikingly styled boxes to produce satisfactory results. Hampden is ready to assist you to pick out the right paper for your box.

Here is one of our latest decorated box papers - available in many different attractive colors. Just ask for the set of large work sheets which is ready for mailing. You will like this new paper - *Enamelay 286* -

Hampden

GLAZED PAPER AND CARD COMPANY

Holyoke, Massachusetts

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Philadelphia, Pa. — 414 Bourse Bldg.

New York, N. Y. — 60 East 42nd St.

San Francisco, Calif. — 420 Market St.

Toronto, Canada — 137 Wellington St. West

Fred'k. Johnson & Co., Limited — 234, Upper Thames Street — London, E. C. 4, England

Seattle, Wash. — 1203 Western Ave.

Dallas, Texas — 3905 Amherst Ave.

HERE'S another outstanding *Pliofilm* contribution to packaging — the new tray-package for Wrigley's chewing gum.

The tray, without a cover, made possible by heat-sealed *Pliofilm*, features the individual packs so that the dealer now displays the whole carton that previously was hidden on stockroom shelves. The tear tape facilitates easy opening.

Moreover, *Pliofilm's* moisture-water-air-proof protection seals in the gum's natural flavors, helps keep it fresh and tasty. And, needless to say, its sparkle adds a luster to the package that creates eye appeal.

In brief, chalk up another hit for *Pliofilm!*

If you are looking for a moisture-proof package for any food—one that will give you better protection, conserving food by eliminating spoilage, sealing in the natural taste or juices—one that will gain greater consumer acceptance—why not inquire about *Pliofilm?* Write: Pliofilm Sales Department, Goodyear, Akron, Ohio.

FOODS ARE BETTER PACKAGED IN Pliofilm made only by GOODYEAR

Seals moisture in seals moisture out

Pliofilm—T.M. The Goodyear Tire & Rubber Company

INSIDE NEWS

FEBRUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Chemistry Plays a Part In National's Research

In the present national emergency it is well to remember that wars very often stimulate progress. The Napoleonic wars gave the impetus which led to the development of the processed foods industries. The ability to process and preserve quantities of food stuffs gave rise to the need for a strong, unbreakable container which would easily conduct heat through its surfaces. Tinplate was found to meet the requirements for a food container and since that time the tinplate container and the food processing industries have continuously developed and progressed to the present day, in which canned food is a very important item of National Defense effort.

Tinplate is composed of a steel base coated or covered with a thin layer of tin. It is well known that ordinary steel is very susceptible to attack and corrosion and would be entirely unsuitable by itself in an unprotected state to serve as a container. The coating of tin on tinplate serves to protect the iron from attack for two reasons; first, because tin in itself is much less reactive than iron and in contact with moisture does not corrode or rust, second, because in some instances due to highly complicated chemical reaction tin corrodes very slowly and "spares" the attack on exposed areas of iron by means of electrical action.

In order to take full advantage of the protective action of the tin coating on tinplate it must be carefully controlled, so that a definite amount of tin is present on the sheet, and that this tin is uniformly distributed. As a part of tinplate inspection the Chemical Division makes frequent determinations of the amount of tin coating on the tinplate received. How this is done is shown in the accompanying photograph. By means of this procedure the maintenance of certain standards of tin coating necessary for the proper performance of the tin container is assured.

A piece of tinplate of known area is dissolved in acid by means of heat in the presence of an inert atmosphere of carbon dioxide. Following solution of the tinplate, the amount of tin in solution is determined by means of titration with a standard solution of another chemical. From the result obtained, the amount of tin on any given unit of tinplate may be calculated. The apparatus pictured provides for nine simultaneous determinations.

In the past, research has resulted in numerous improvements both in the production of tinplate and in increasing its serviceability. It is to be expected at the present time that accelerated research activities will result in the continuation of the supply of essential tin coated containers while at the same time meeting the requirements of tin conservation demanded by the present situation. "RESEARCH IS ORGANIZED THINKING." (66)

Vitamins Seen as Sales Aid

Something that is new and attractive enough to sell and repeat—that is what canners are always hoping their production men can develop. In the field of fruit and vegetable juices they have had impressive success in recent years. Now a resourceful New Jersey canner after months of research has brought out a blend of four vegetable juices—tomato, celery, spinach and parsley—that is fortified with vitamins B_1, B_2, and D.

A rising tide of consumer interest in better nutrition in recent months is leading many canners to weigh the advantages that fortification of their products with synthetic vitamins offers. Vitamins A and C and minerals are naturally present in several vegetable juices in adequate quantities. Addition of other vitamins, now made possible through research, promises to accomplish two things: provide a complete schedule of daily vitamin requirements and step up sales. (67)

Herring in B. C.

Phenomenal growth has occurred in the herring canning industry of British Columbia in the past three seasons. In 1941, the orders amounted to 1,600,000 cases in the export business, an increase of 283 percent over 1939.

Two important new facilities have been installed by herring canners in British Columbia. These include methods for partially dehydrating the fish to make it firmer, and a mechanism for packing the fish whole, cleaned and dressed and garnished with tomato sauce, in 1-lb. and ½-lb. oval cans. (68)

Citrus Canners Convert Waste Into Profitable By-Product

Florida citrus canners have talked of converting waste into cattle feed for several years and several of them have done more than talk. Ordinarily it would cost canners perhaps $100,000 to dispose of the waste materials they will handle during the 1941-42 packs of grapefruit and oranges. But they will process this material into cattle feed and sell it readily for $30. per ton. The most important single factor in making citrus pulp feed was the discovery that the addition of enzymic or alkaline materials to the raw pulp facilitated the removal of water by mechanical means. (69)

Weathered Wood Effect

A weathered or driftwood effect on new lumber may be obtained by treating the lumber with one or more applications of medium strong solution or ferrous sulphate (copperas). If desired, use a gray-green paint, reduced with turpentine as a stain and as a final finish use a spar varnish, thinned down with turpentine—about one quart to a gallon. (70)

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BY
NATIONAL CAN

FEBRUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Canned Rice

Rice growers and canners in the Gulf States are following with more than casual interest successful California experiments in canning rice. For the last two years a program of research has been going on in the University of California laboratories. Rice growers in California, eager for some method of bettering their market, are canning rice and promoting its sales in a small way.

Rice is one of the richest foods in vitamin B content, yet per capita consumption of rice in the United States is the lowest of any country. The English people eat 14 pounds of rice per capita each year. In the United States the per capita consumption is only 4 pounds annually. (71)

British Use Greases in Paint Films

Sewage grease, wool grease, and similar materials have shown interesting substitute possibilities for use in the manufacture of paint films in recent British development work. It has been found that recovered greases can be processed so as to condense unsaponified constituents, which then are applicable as paint media. It has also been found that slight changes in the process enable the simultaneous formation of metallic soaps, particularly magnesium soaps, and that the mixture can be used to produce tough, flexible paint films.

Investigations have also revealed that wax-like materials formed by the condensation of certain aliphatic amines with cyclic polycarboxylic acids which do not form inner anhydrides possess very good binding power as regards oils, and therefore have suggested their use in the formulation of polishes, shoe creams and similar materials. (72)

Grapeseed Oil and Varnish

The processing of grape seed as a source of oil is being intensively developed in European countries. The first pressed oil is suitable for edible purposes, while oil obtained by warm pressing, or second pressing, is for use in varnish manufacture. (73)

Idaho Prune Juice

Although Idaho is best known for its potatoes and is not generally considered a canning state, research workers at the agricultural experiment station are not blind to the possibilities of canning for turning losses into profits. A great many prunes are produced in Idaho, and state workers have developed a formula for producing prune nectar, about the consistency of tomato juice, from fruit that otherwise would be culls. The formula is available to private and commercial canners who are interested. (74)

Movies Use Paint

Hollywood producers use thousands of gallons of paint and related products a year in their pictures, it is reported. One company in a recent year required 21,969 gallons of paint—more than a ton of paint per picture—and 22,633 gallons of thinner. Walls, floors, roofs and many other surfaces must be painted and decorated to make the movie sets complete. (75)

Skin Remover

Skins are removed from fruits and vegetables, after being loosened by heat or other processes, with a device invented recently by a Seattle man. The apparatus is so designed that the skins are removed by friction between the fruits and vegetables themselves as well as between these products and power-driven rollers in the machine. Sprays wash away the removed skins and also cool the fruit to prevent cooking when the skins are loosened by heat. (76)

Kukui Oil May Substitute

Among the many substances that have been suggested as possible substitutes for tung oil is kukui oil, which is extracted from the kukui nut. According to research chemists this product is equal in quality to tung oil. (77)

Salmon Pack Sets Quality Record

Rigid inspection of canned salmon, undertaken on an ambitious scale eight years ago, has paid remarkable dividends to canners. Up to late in October this year 3,730 parcels of canned salmon containing about 6½ million cases had been sampled and examined. This represented about 86 per cent of the total American pack. Inspection indicated that the 1941 pack is probably the best pack of canned salmon ever produced. (78)

Technical Topics

PEANUT OIL is being used as a motor fuel on the desert road to Dakar, Africa. (79)

A COLORLESS CHEMICAL containing nitrogen has been extracted from ragweed pollen and is believed to be a major cause of hay fever. (80)

A CHEMICAL made from eucalyptus oil has been patented in Australia, following successful tests as an anti-knock agent in gasoline. The chemical is phellandrene. (81)

THE "BLACK MARKET" in England for cosmetics is reported by the English trade press to be substantial. English production of cosmetics is limited by Government decree. (82)

COPAIBA OIL, used in medicine, in varnish and in photography, is produced in Brazil, Colombia and Venezuela. The United States has just contracted for the entire Brazilian production. (83)

PINE OIL is used in perfumery, paint, textile finishing and in great quantities in the separation of metals from their ores. A new synthetic turpentine relieves a serious shortage. (84)

THE ELECTRON MICROSCOPE is revealing a vast hidden world to scientists. Smoke particles from burning metal are shown to have characteristic shapes, often crystalline. (85)

CALCIUM FIRMING OF CANNED TOMATOES. About a million cases of canned tomatoes were packed this year with small quantities of calcium added to produce a product that is firmer and can be sold as higher than standard grade. Most of the canners used tablets made of table salt and calcium chloride. By using this treatment on the small Italian type tomatoes, canners now believe that a product can be developed that will be popular for winter salads, opening an important new market. The process of adding minute quantities of calcium chloride to canned tomatoes was legalized in June 1940. (86)

For further information on any of these articles write to National Can Corp., 110 E. 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

(Advertisement)

Packaging Insurance

BRINGS 3 CHEERS

SIS-S-S—

SAYS THE FOREMAN who's in charge of sealing:
"Talk about a work horse! The Alseco Sealing Machine hardly ever needs a rest for repairs or adjustments. It's a speed demon, too. I'm strong for Packaging Insurance."

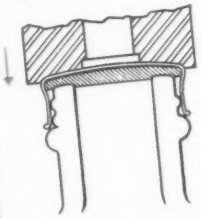
BOOM—

SAYS THE RETAILER who's in the middle, selling:
"Haven't had a leaker for a *long* time! Nor anybody complaining they didn't get all that's coming to them. Must be those Alseco Seals do a better job of sealing."

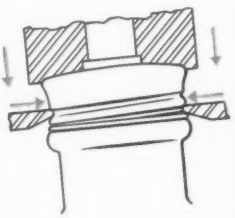
AH-H-H!

SAYS THE WOMAN who buys and buys and buys:
"I'm not Tarzan! Just his mate! Why can't all caps be as easy to open as this one? Another thing I like is the way it keeps the product just right. Really fresh!"

HOW YOU GET "PACKAGING INSURANCE" BY THE ROLLED-ON METHOD OF SEALING



1. Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is embedded in liner evenly all around.



2. While held in that position, threads are Rolled-On to conform exactly to threads on container. Each seal is tailor-made, fits perfectly.

Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

"Packaging Insurance" can even be "written" to protect your product from tampering. There are several types of Alseco Rolled-On Seals that prevent adulteration, substitution and pilfering.

Or, if your product is of such a special nature that no standard closure quite meets your needs, the R-O sealing principle may be adapted to give you a seal specially designed for your purposes.

* * *

War has stopped the sale of Aluminum for seals. However, most types of Alseco Seals can be supplied in metals other than Aluminum.

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL COMPANY, 1345 THIRD AVENUE, NEW KENSINGTON, PA... At your service: 28 years of experience building quality seals and sealing machines.

SMART PACKAGING MADE INEXPENSIVE WITH *Swindell* STOCK *Bottles*

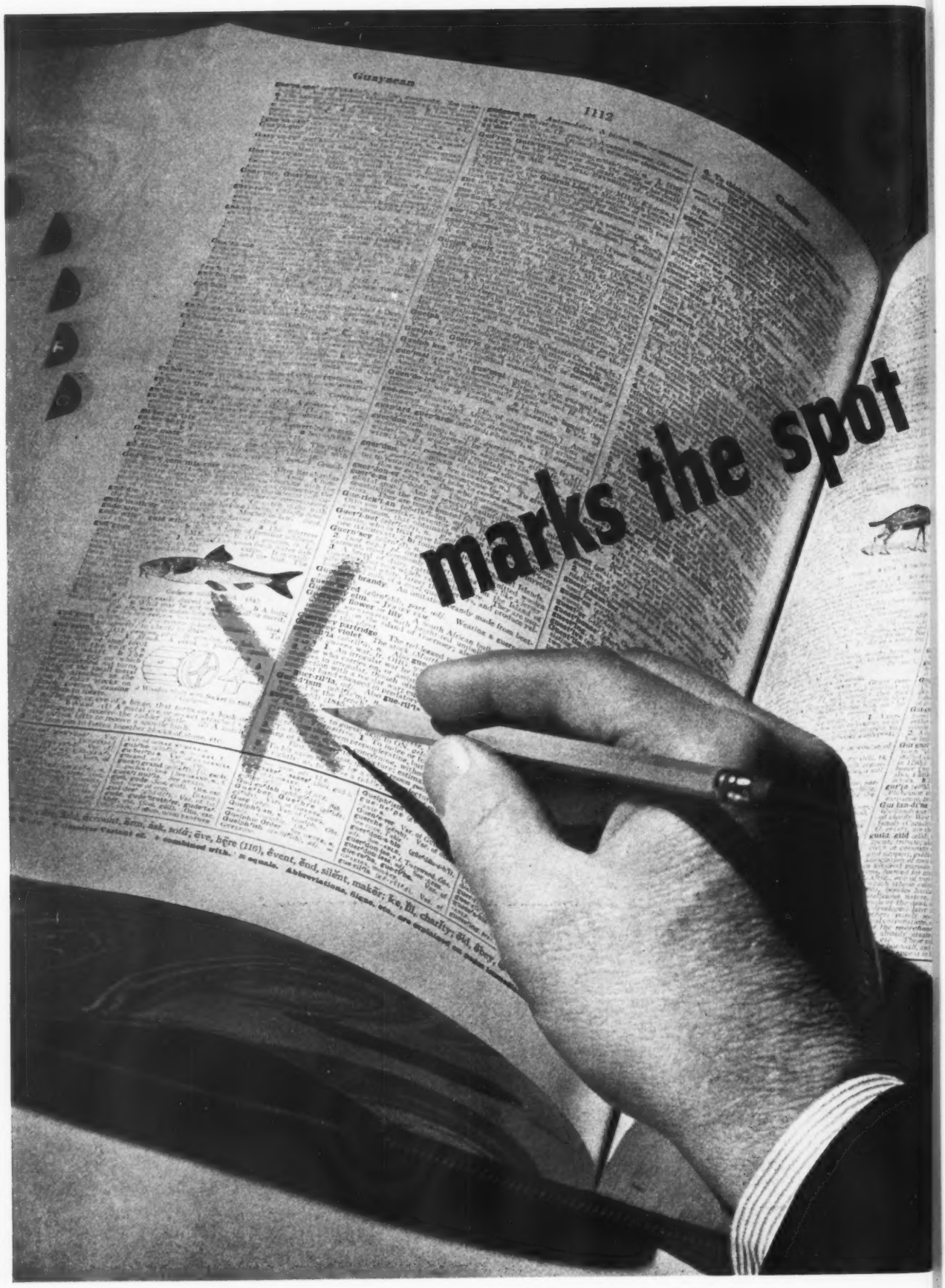
No delays, no "priority troubles," no investments in private moulds—when you choose one of Swindell's smartly designed stock bottles! Here are seven beauties:

J-32: ½ oz. to 16 oz. N-30: ⅛ oz. to 8 oz.
D-62: ½ dr. to 8 oz. A-273: ¼ oz. to 16 oz.
C-39: ½ oz. to 16 oz. A-682: ⅛ oz. to 4 oz.
A-539: ½ oz. to 32 oz.

SWINDELL BROS.
BALTIMORE, MARYLAND
200 FIFTH AVENUE, NEW YORK
ROBERTO ORTIZ—HAVANA, CUBA

When you think of bottles think of

Swindell


Guayacan
1112
marks the spot

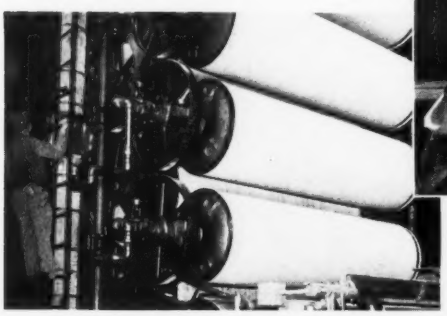
where "GUESS" used to be

YOU WON'T FIND "Guess" in our dictionary. Neither will you find "Maybe", "Almost" or "Chance". We crossed these words out long ago —they don't fit in with the Gardner-Richardson policy of accuracy and integrity and sticking to a job until it's as near perfect as anyone can make it.

As you go through the two big Gardner-Richardson plants, you sense this—you see it in the attitude of every Gardner-Richardson man. But there's one thing you don't see. It's a sign that hangs over every machine, every technician's work table, every executive's desk. It's an *invisible* sign—invisible to everyone but Gardner-Richardson men. It reads, "Get the job out *right!*" And the word "RIGHT" is printed in big, red letters!

That is the standard we have set for ourselves—*and we live up to it.* That is what we mean when we say Gardner-Richardson cartons are "*Precision-Engineered.*" And they are! From pulp to finished cartons, we check, test and prove all along the line . . . see to it that every operation is more exact, more precise. As a result, Gardner-Richardson cartons speed through filling and sealing machines with fewer jam-ups, less waste. And, more important, these *Precision-Engineered* Cartons have the eye-appeal and the buy-appeal that speeds them off retailers' shelves.

WHAT ABOUT TENSILE STRENGTH? How does it fold, score, seal? Gardner-Richardson technicians ask the questions *before* you do. That's why Gardner-Richardson products can be called "*Precision-Engineered*".



TWO-THOUSAND-TON GIANTS — so sensitive that they object to variations as slight as 1/1000 of an inch. At Gardner-Richardson, mechanical controls, plus constant, scientific checks insure "*Precision-Engineered*" products.

GARDNER-RICHARDSON — FROM PULP TO FINISHED PRODUCT — ENGINEERED PRECISION

The GARDNER-RICHARDSON Co.

MANUFACTURERS OF FOLDING CARTONS AND BOXBOARD
MIDDLETOWN, OHIO

We found what an industry lacked for 1100 years

Lacquering is one of the oldest of the industrial arts. By the middle of the last century, it was not only old but decrepit; the 30-coat, three-week finishing process that lacquering required was far too long for industry to tolerate, or for amateurs to bother with.

Then, in 1882, chemists in the Celanese Celluloid organization gave lacquer new life by supplying a solvent that made the process commercially practicable. The solvent is one your nose is always quick to identify: amyl acetate, or "banana oil."

That was in 1882—12 years after this company was launched by the discovery of Celluloid, the world's first plastic, and 48 years before we introduced

LUMARITH PROTECTOID

the new era transparent packaging material.

We bring this up as another indication of how the inventive American spirit has a way of solving almost any given problem.

Today, with Lumarith Protectoid busy on the war front in dozens of different ways such as insulation and communication apparatus, our problem is to find enough material to go around after these vital needs have been met. But solving material problems is our business. With the vigor that got the plastics industry started, we're finding new answers constantly.

All of which leads to this closing suggestion—*to be "in" on new developments in plastics and packaging, keep in touch with Celanese Celluloid.*

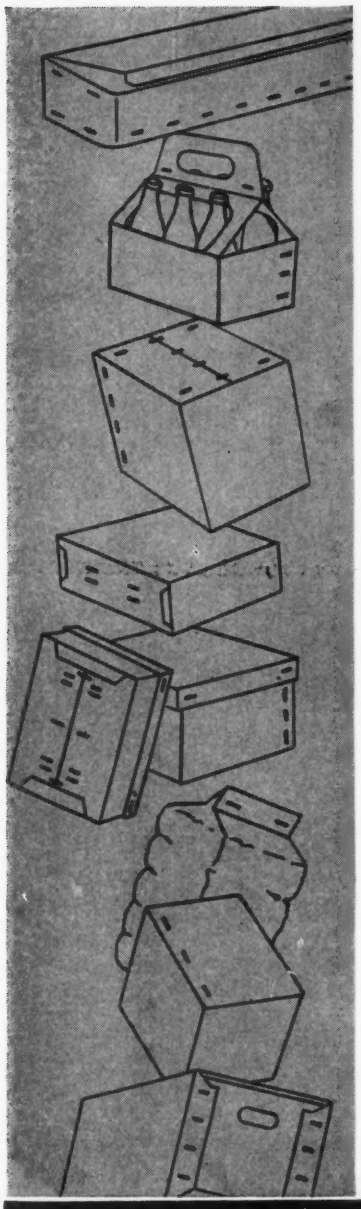
Celanese Celluloid Corporation

Celanese Celluloid Corporation (formerly Celluloid Corporation), 180 Madison Ave., New York City. Sole Producer of Celluloid* (cellulose nitrate), Lumarith* (cellulose acetate), Lumarith Protectoid* (transparent packaging material), H-Scale* (synthetic pearl essence), Lindol* (plasticizer and lubricant additive), Samson* and Safety Samson* Film Bases, and Vimlite* (Flexible health glass). *Trademarks Reg. U. S. Pat. Off.

NEW Time and Money Saving Records

WITH ACME *SilverStitchers*

REG. U. S. PAT. OFF.



● Look at the records! One user was able to double the production of stitched cartons — by installing Acme Silverstitchers. Savings of 50% in both time and money made another manufacturer a strong supporter of this amazing new stitcher. To another concern Acme Silverstitchers meant a much stronger carton — a better and a neater job. No wonder this new box stitching equipment is commanding such phenomenal acceptance!

You can be setting box stitching records, too—records for speed and economy. Don't wait — get the facts now! Mail the coupon below.

Teamed with ACME Silverstitch — for Stitching Satisfaction

Acme Silverstitch Stapling Wire is built to perform with Acme Silverstitchers. Engineered to work as a team, they assure stitching satisfaction year after year. Both wire and equipment are supplied and guaranteed by Acme Steel Company.

YOU NEED THESE ACME SILVERSTITCHER FEATURES:

Adjustable single pedal control . . . Few moving parts mean lower maintenance costs . . . Vital parts are reversible . . . Low power consumption . . . Heavy duty construction for long service . . . Silent V Belt drive . . . Wide, comfortable foot-rest treadle . . . Resilient one-piece feed wheels . . . Handles two gauges of Silverstitch without adjustment.

Conveniently placed starting and stopping toggle safety switch. Overfeed with adjustable spring tension and unique wire friction plug provide constant and even flow of wire. Extra long life of main drive anti-friction bearing assured by use of genuine Promet bronze.

Mechanism is guarded for maximum safety. Individual parts are precision made and are interchangeable. Friction brake spring maintains continual pressure on clutch hub and simplifies brake adjustments.

Easy to operate . . . Runs smoothly and quietly . . . Efficient . . . Modern . . . Economical . . . Guaranteed.

MAIL COUPON FOR TIME AND MONEY-SAVING FACTS!

ACME STEEL COMPANY

2843 Archer Avenue, Chicago, Illinois

Branches and Sales Offices in Principal Cities

ACME STEEL COMPANY,
2843 Archer Avenue, Chicago, Illinois

I'm interested in more economical, faster and easier box stitching. Please send me the free folder with all the facts.

Name.....

Address.....

City..... *State*.....

SUNALLOY*...

A Contribution to Conservation

OVER four years ago, before tin had become a "strategic" metal, a long-term program of research into the use of tin and its alloys in the manufacture of collapsible tubes was instituted by the establishment of a Fellowship at Carnegie Institute of Technology.

The requirements of the defense program and the desirability of effecting a decrease in the amount of tin used in packaging accelerated this research program. Then, early in 1941, Sun Tube Corporation offered a suitable alloy, with a substantial indicated saving of tin, to be used as a substitute for tin and aluminum in collapsible tubes.

Sunalloy has been tested with various types of products. In a number of cases, it has been found satisfactory without further processing. In other cases, internal tube coatings similar to those used on tin-coated and aluminum tubes, are desirable or necessary. Obviously, no substitute for tin tubes should be used without thorough testing with the specific product to be packaged.

In addition to tubes made of Sunalloy, Sun Tube Corporation will continue to manufacture tubes of tin, tin-coated lead, and lead, within any restrictions which may be imposed. The million-gross annual capacity of its plant assures its customers of deliveries.

*Patent applied for

SUN TUBE CORPORATION

Hillside, New Jersey

CHICAGO, ILL.	CINCINNATI, OHIO	ST. LOUIS, MO.	ST. PAUL, MINN.	LOS ANGELES, CALIF.
James L. Coffield, Jr.	G. M. Lawrence	M. P. Yates	Alexander Seymour	R. G. F. Byington
333 No. Michigan Avenue	2428 Spring Grove Ave.	315 Chestnut St. (Room 125)	903 Pioneer Bldg.	1260 North Western Ave.

The man who saved his company money by being Patriotic!

Our Uncle Sam needs a great deal of boxboard this year and next. Everyone knows there's far less than enough to go around. At Warnercraft, we've done *more* than worry about it. Our people have developed new, distinctive designs that are saving tons of boxboard for national defense—at the same time giving our customers better packages and better service.

Maybe you, too, can save for your country and save for your company! Why not consult a Warnercraft representative? It will cost you nothing to find out.

YOUR PHONE IS ALWAYS HANDY
. . . For WARNERCRAFT SERVICE
. . . For WARNERCRAFT QUALITY
. . . For WARNERCRAFT PRODUCTS
Call Bridgeport 4-0101 New York Ashland 4-1195

WARNERCRAFT

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers.

THE WARNER BROTHERS COMPANY

Main Office and Factory: 325 Lafayette Street, Bridgeport, Conn.
New York Sales Office: 200 Madison Avenue, New York, N. Y.

Defense

To those who are now doing defense work, we offer our services and facilities.

At the present time, we are in a position to print and manufacture booklets, letterheads, forms, labels, tags, wrappers and all sorts of simple, ordinary printing—of a character that will contribute to the war effort.

To do this work, we have many special presses and, if necessary, we will build other suitable equipment. Our tool and die-makers are skilled in producing die-cut and embossed pieces to close tolerances. These same skills can be turned to making gaskets, washers, fine metal stampings and similar items. We'll be glad to show you.

★ ★ ★

RICHARD M. KRAUSE

Fabricators and Printers of Sheet Materials

52 East 19th Street - New York City

CLOSURES in bright identifying colors!

NOTHING is more important to the success of any packaging job than the *right* closure!

That's why Beetle* closures are adding new sales and *service* appeal to many a package. For Beetle has always been an ideal closure material. Economical to produce, it is also highly resistant to oils, chemicals, solvents; it cannot cause product contamination; is non-corrosive! Its light weight and durability make it readily adaptable to high-speed, mass-packaging methods.

Add the eye-appeal of Beetle's brilliant color, and the smooth warmth of its lustrous surface, and you have a combination of qualities that add up to "tops" in the field.

We will gladly send you some samples or review your packaging problem with you. Our experience may prove extremely helpful and we will be glad to cooperate with you in every way we can.

Write us today for further information.

AMERICAN CYANAMID COMPANY
PLASTICS DIVISION
34 ROCKEFELLER PLAZA • NEW YORK, N. Y.

*Reg. U. S. Pat. Off.

A CYANAMID PLASTIC . . . Beetle

KIMBLE Moulded CONTAINERS

Individualized

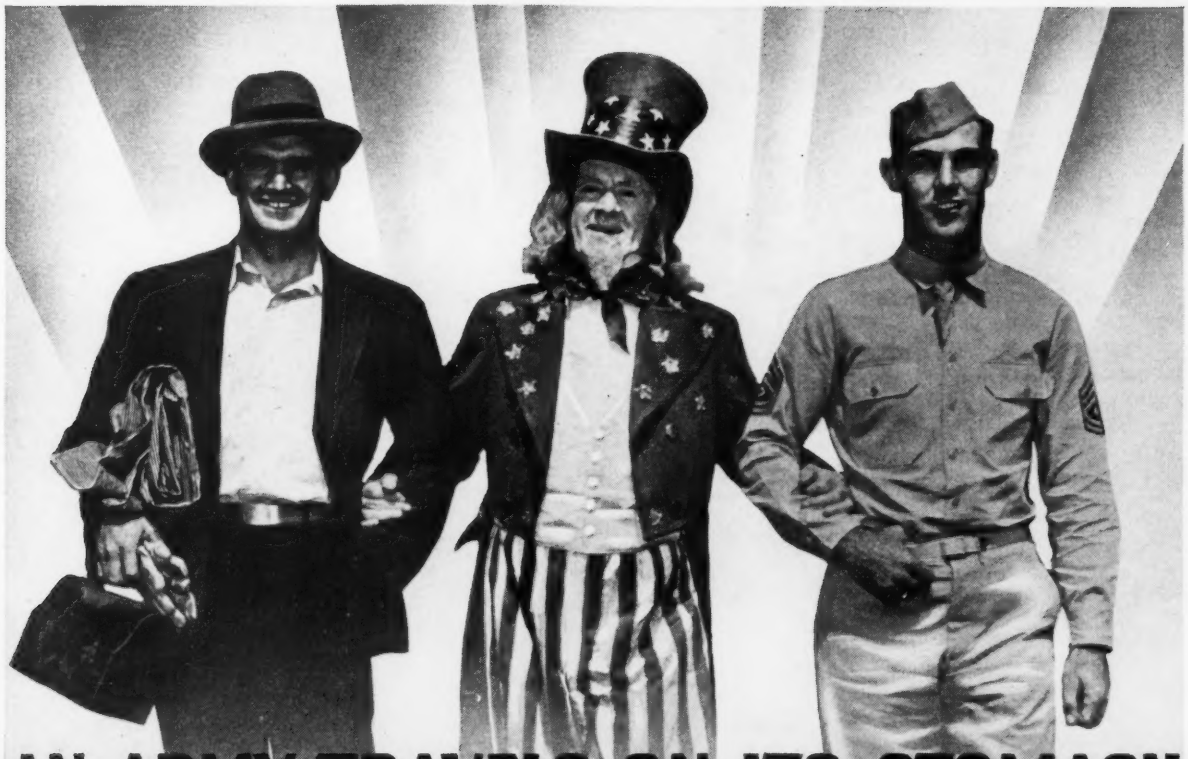
TO CREATE DISTINCTION

For A NEW VERSION OF YOUR *OLD* PACKAGE
A RAPID ACCEPTANCE OF YOUR *NEW* PRODUCT
Consult Kimble

K
KIMBLE GLASS

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY . . . . VINELAND, N. J.
NEW YORK • PHILADELPHIA • DETROIT • CHICAGO
BOSTON • INDIANAPOLIS



AN ARMY TRAVELS ON ITS STOMACH

Napoleon's words are truer than ever today, for Uncle Sam's two big armies, in the Service and in the factories, deserve and will receive the most nourishing foods in the world. And then comes the feeding of civilians both here and abroad.

It's an enormous problem of quantity production which calls for packaging of the highest order so that foods may travel farther, last longer and be more palatable when consumed.

Waste and spoilage must be reduced in every way. This is the highly essential, truly economic and gravely important function of packaging today. It is the function for which almost every Riegel Paper was specially developed, whether in peace or in war.

Paper can do many jobs better, quicker and at less cost—so we're hard pressed to meet current requirements—but we're still just as eager and as willing as ever to help you with your protective packaging plans.

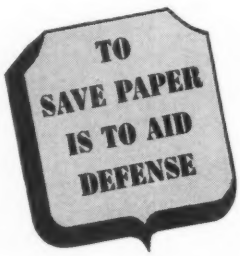
RIEGEL PAPER CORPORATION

342 Madison Avenue • New York, N. Y.

More packages from *Less* paper

A Constructive War Time Service Offered to Established Manufacturers Without Cost or Obligation

As a part of a material conservation program, our design department is effecting changes in our customers' packages that reduce paper content by as much as 30%. That makes it possible to produce more packages from the smaller stocks now available for private industry needs.



We offer this same service without cost or obligation to *any* established manufacturer. Our design and production experts will study your package and recommend ways by which the paper content can be reduced and much of the effectiveness still retained.

We have no desire to gain immediate sales by this service. War production and the needs of our present customers — which, of course, come first in that order — are now taxing our large manufacturing facilities. This service is offered rather as an additional means of conservation and as a contribution to the common good.

If you will write us enclosing samples of your present package, we will send you our recommendations and suggestions.

INVEST IN AMERICA!

Buy United States Defense Bonds and Stamps

W. C. Ritchie AND COMPANY

8842 BALTIMORE AVENUE • CHICAGO

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS DENVER MIAMI

"I CARE FOR NOBODY – NO! NOT I,
SINCE NOBODY CARES FOR ME"

Stock bottle #402 is made in the following sizes and finishes: 1-dr. 425-8 MM. 2-dr. 425-10-MM. 3-oz. 410-18 MM. 4¾-oz. 410-20 MM.

JUST rummage around the shelves of any retail store and you'll find many packages which have outlived their shelf-life. There is nothing pleasant about these packages. Quite the contrary! You'll find that they're a sad, drab lot of containers.

If they could talk you'd find that public favor means nothing to them—because they possess nothing the buying public fancies. Whatever good they contain is buried forever, because they didn't have what it took to sell themselves when they had the chance.

There's no reason why your package should join that sorry crew. With what our market specialists know about selling —our designers know about planning—and our production men know about manufacturing glass bottles—all working to package your product—you'll probably get a package that will keep your product out where the sales begin.

CARR-LOWREY 3-Point Service

creates

PRACTICAL · ATTRACTIVE · ECONOMICAL

glass packages for cosmetics, drugs, foods, household products.

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Ave. • Chicago Office: 1502 Merchandise Mart

An Open Invitation to Visit
The EXHIBITION of

All packages and displays entered in the
11th ALL-AMERICA PACKAGE COMPETITION*

on view at

GRAND CENTRAL PALACE
room 639
480 LEXINGTON AVENUE
NEW YORK CITY

From January 20 to March 10, 1942

Visiting Hours: Daily, 10:30–4:30—Saturdays, 10 A. M. to Noon

open to the public

★

*The Exhibit Comprises the Outstanding Achievements in the World of Packaging and Display—the Work of America's Leading Packagers, of the Most Creative Designers and Package Suppliers —the Contributions of Packaging to the Welfare of the Country.

The school with the packaging problem

It was just 100 years ago that the quiet little town of Franklinville, New York, ran into quite a packaging problem. It concerned color.

Choosing the right colors for any kind of package is always a problem. Franklinville's choice started a feud.

Fire destroyed the original schoolhouse and a new one was built. One group wanted to paint the school white. Another faction held out for red paint. Words flew thick and fast. Arguments grew bitter. Finally, the "Whites" won the verdict.

The others didn't accept the decision. They met one moonlight night and painted red checkered squares on the white paint. As a compromise the school has remained red and white ever since.

In business, color in packaging must be just right and please everyone—from the manufacturer to the consumer. Colors must attract, harmonize, and be practical.

Being able to choose the right colors for the package *and* the product is the mark of a packaging expert. The correct use of color in designing packages is but one of the many features of Continental's complete packaging service.

The best design will not be successful unless it's reproduced perfectly. The best looking package will not be a success if it is not convenient for consumers or if it does not protect its contents fully.

Our complete service takes in every angle of good packaging. If you have a packaging problem, call Continental.

CONTINENTAL CAN COMPANY

New York Chicago San Francisco Montreal Toronto Havana

ATTEND!
Waldorf-Astoria, Mar. 12
Annual Banquet of the Drug, Chemical & Allied Trade Section of New York Board of Trade. Entire Net Income Donated to Red Cross.

A "Stopper" FOR SHOPPERS

COLOR makes your product Easy to See.

COLOR makes your product Easy to Remember.

COLOR inspires confidence in its Quality.

COLOR helps insure Repeat Sales.

COLOR gives a Distinctive Appearance.

COLOR gives your product Better Display.

COLOR makes your product Smart—Modern.

COLOR advertises your product in the home.

COLO

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COL

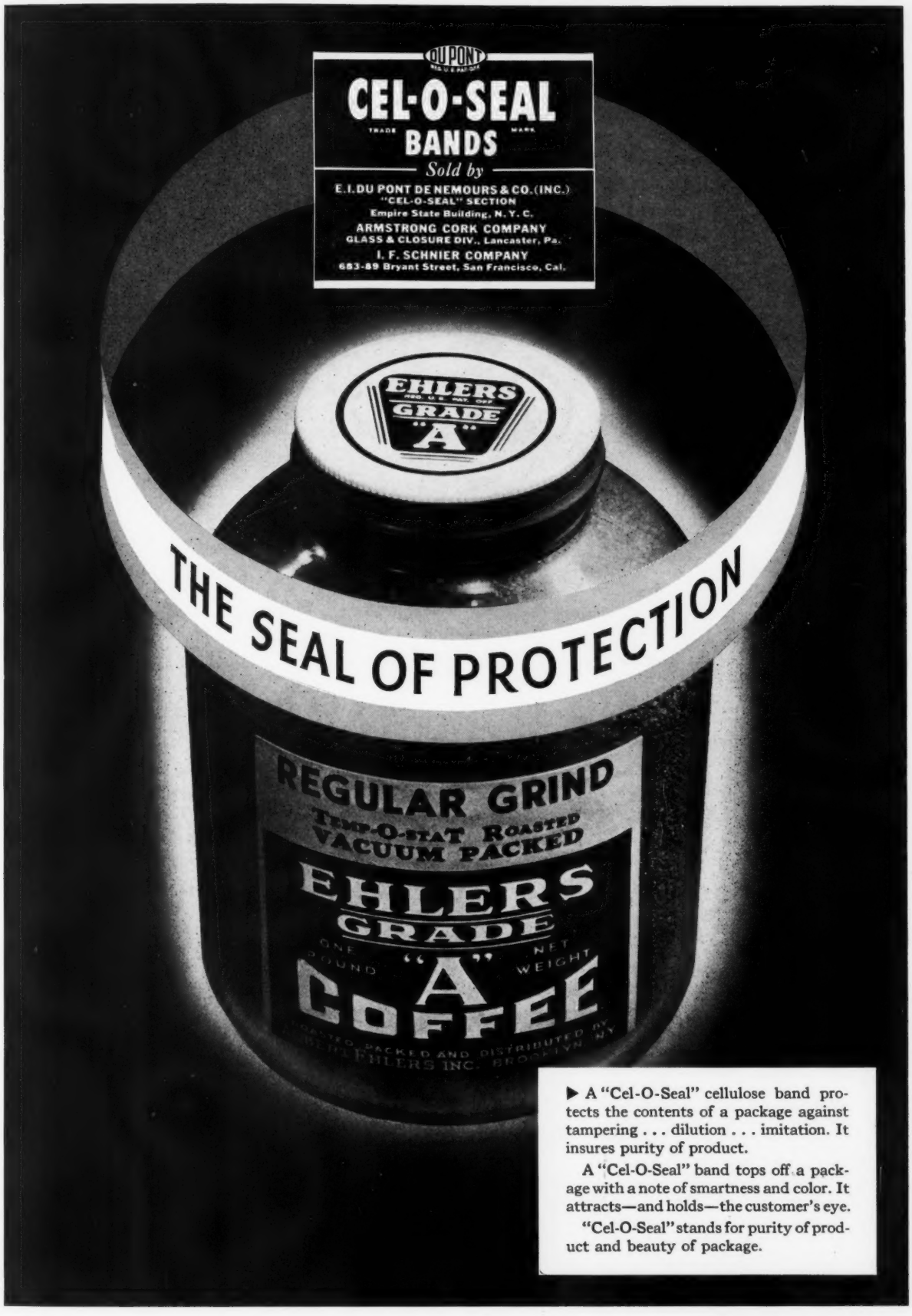
COL

RICH, ROYAL MARYLAND BLUE stops the eye and starts the sale. Dealers like Maryland Blue because of its colorful display value . . . Consumers like Maryland Blue because it makes their favorite product easy to identify, easy to remember . . . *You* will like Maryland Blue because it high-lights your product to build sales.

Distinctive BOTTLES AND JARS

MARYLAND BLUE

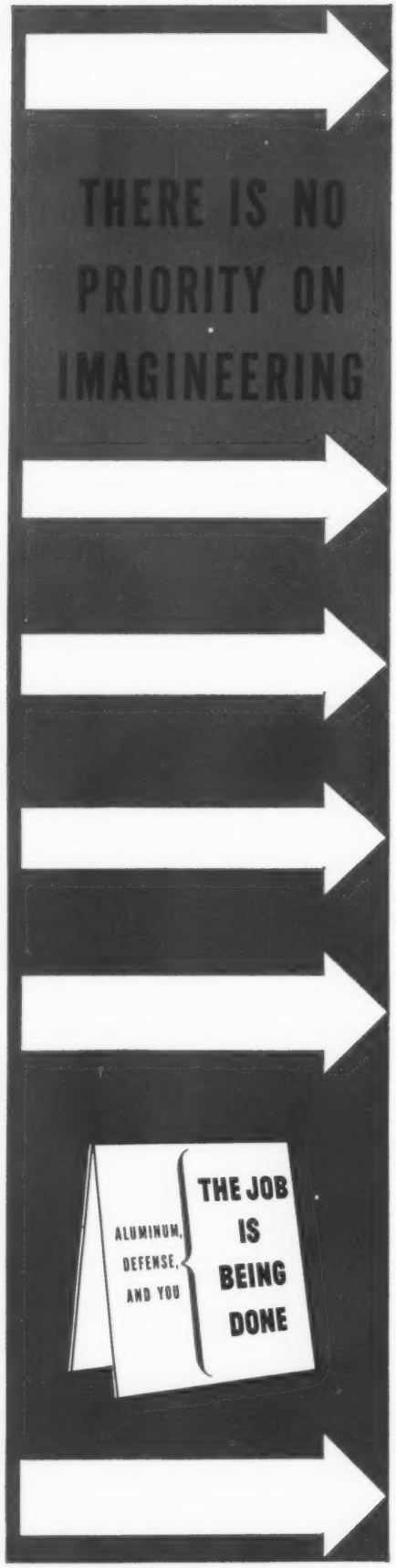
MARYLAND GLASS CORPORATION, BALTIMORE, MD. . . New York: 270 Broadway . . Chicago: Berman Bros., 1501 S. Laflin St. . . St. Louis: H. A. Baumstark, 911 Locust St. . . Memphis: S. Walter Scott, 435 S. Front St. . . Kansas City, Mo.: Aller Todd, 1224 Union Ave. . . Cincinnati: J. E. McLaughlin, 401 Lock St. . . San Francisco: Owens-Illinois Pacific Coast Co.



▶ A "Cel-O-Seal" cellulose band protects the contents of a package against tampering . . . dilution . . . imitation. It insures purity of product.

A "Cel-O-Seal" band tops off a package with a note of smartness and color. It attracts—and holds—the customer's eye.

"Cel-O-Seal" stands for purity of product and beauty of package.



EVERY INDUSTRY, every responsible man in industry, has the present duty of answering two questions.

FIRST ONE IS: Are we, am I personally, doing everything within my power for the war? Our answer here at Alcoa is a plain, unqualified, yes.

NEXT QUESTION IS: What are we doing about the day when we will all need business, which is the polite way of saying, when millions of jobs will be needed for the boys who come back, and for the boys who stayed back to make the weapons.

IMAGINEERING, you know, is the word we have coined to define what we business people have all got to do about the future; about the products we are going to make and the services we are going to be able to offer when this war is over. Imagineering is imagination plus engineering.

HOW DO YOU DO IT? One way would be to figure out, now, how to take advantage of all the aluminum that is going to be available.

QUICKEST WAY TO GET AT IT is to take one of your products or a piece of equipment that "just couldn't" be made of aluminum, and ask yourself, Why not?

MEANING, OF COURSE, why not light; why not stronger for the same weight; why not resistant to corrosion, and so on, ad infinitum. The first man in any line of business who calls tradition a liar, and things-as-they-are a millstone, is the man who is going places; the man who is going to make peacetime pay rolls.

THAT'S IMAGINEERING AT WORK. We've got some ideas here at Alcoa. We're trying to pass them out. We are looking for men who have made themselves receptive by doing some solid Imagineering on their own hook, in their own fields.

Aluminum Company of America, 2129 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM

Worth looking into!

Anything that will help you overcome the obstacles that prevent smooth sale-ing is certainly worth looking into!

To you this means packaging your products in *glass*. For, as a result of many new developments, Anchor Hocking glass containers *today* offer you a host of sales-stimulating features. In addition, Anchor Hocking gives you—at *no extra cost*—the *extra* advantages of Anchor Hocking experience and facilities. Its specialists...in design, engineering, biological and chemical research...know packaging from every angle. They are at your service, to provide first-rate technical assistance, new packaging ideas, containers and closures designed to better sell and better seal your products.

No matter what your requirements—the complete package, the containers alone or the closures alone—it will pay you to call in your friendly Anchor Hocking packaging engineer.

Worth Looking Into! This Anchor Hocking Container and Closure for Foods

Sealed with the 66 mm AH-N Cap illustrated below, this Anchor Hocking container is outstanding for vacuum-packing fruits and vegetables. It's sturdy, yet light in weight, has a stipple design at the base. It cuts packaging costs...is inexpensive to ship...provides maximum eye appeal for maximum buy appeal...steps up profits. Sample on request.

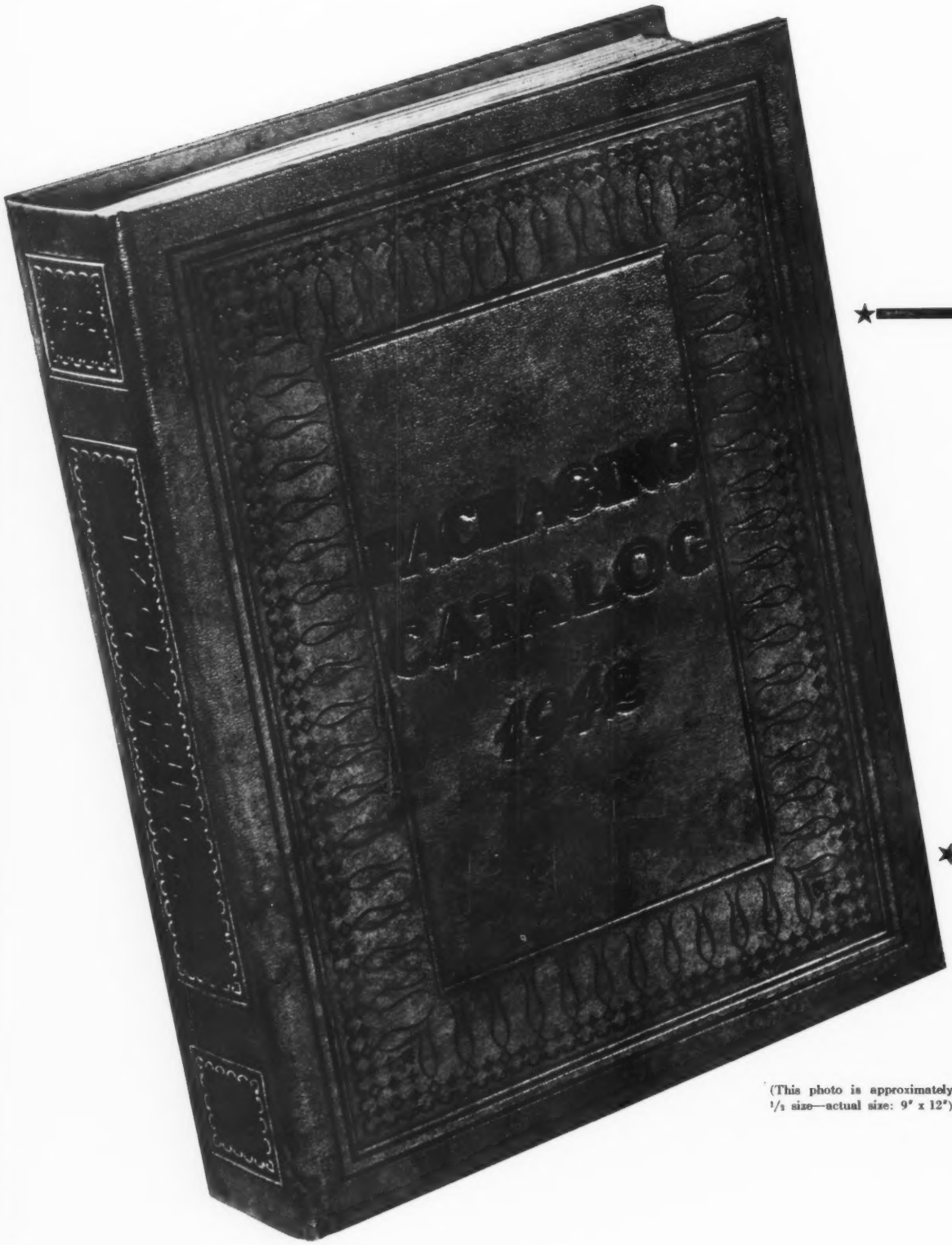
The Anchor Hocking AH-N Closure...assures a dependable vacuum seal, may be applied quickly and economically. Is also easy to remove and reseal. May be used with or without pry-off finish container. AH-N caps are shipped completely assembled and nested, to save storage space, add to convenience and speed in handling and filling automatic cap feed.

ANCHOR HOCKING

GLASS & CAPS

ANCHOR HOCKING GLASS CORPORATION • LANCASTER, OHIO

PUBLISHED THIS



(This photo is approximately
1/3 size—actual size: 9" x 12")

S MONTH!

THE ONE AND ONLY COMPLETE AUTHORITATIVE HANDBOOK OF EVERY PHASE OF PACKAGING

MORE THAN 650 PAGES—— CONTAINS ONLY COMPLETE DIRECTORY TO SUPPLIERS OF PACKAGES, PARTS, MATERIALS AND EQUIPMENT

THE LARGEST PACKAGING CATALOG EVER PUBLISHED—FILLED WITH FACTS, FIGURES, CHARTS, DATA

THE largest—and the most valuable—Packaging Catalog ever published has just come off the presses, totally revised, re-written to help packagers meet the total needs of 1942.

Over 630 pages of solid facts make the 1942 Packaging Catalog a *workbook* that every responsible executive in the packaging industries *needs* to help him operate under a war economy.

4 HUGE CHARTS CONTAIN INFORMATION COMPILED EXCLUSIVELY FOR THE 1942 PACKAGING CATALOG

1. PLASTIC PROPERTIES—physical and chemical characteristics of plastics used in packaging.

2. RIGID SHEET PLASTICS—outline of the properties of various sheet plastics used in making rigid containers and displays.

3. LABELLING DIFFICULTIES—the causes and cures for all the things that can go wrong with the labelling process.

4. WRAPPING MATERIALS — the chemical, mechanical and other properties of the various groups of wrapping materials.

A new section on Pottery, Leatherette and Wood gives packagers the facts they need on these important materials. The Adhesives section is much expanded, and includes a complete summary of the properties and uses of the various gums, glues and adhesives used in packaging. A brand new treatment of the important deep-drawing process for molding thermoplastic sheet materials has been added. The article on Materials Handling Equipment has been completely revised to help manufacturers utilize this equipment to speed up production.

These are only samples of the new articles in the 1942 Packaging Catalog. Copies are selling faster than ever before—and the number available cannot be expanded. Order now and get your copies—after these are gone there'll be no more until 1943!

$5. per copy

(Foreign and Canadian $6.)

1942 PACKAGING CATALOG

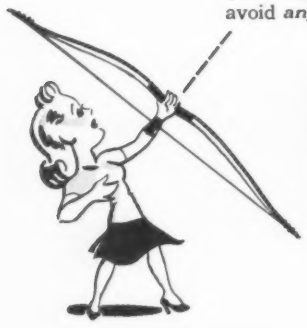
122 East 42nd Street **New York City**

EMERGENCY RATIONS FOR FIRE FIGHTERS ... BOSTITCHED

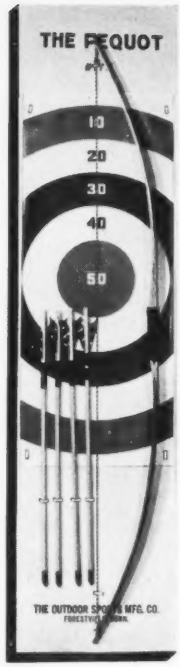
Protect *your* package with a strong fastening, as this manufacturer did when preparing bundles of food to be delivered to forest fire fighters at the scene of action. Emergency rations get rough handling, deep in the woods, but Bostitch staples hold. Tests proved cloth would break open before the staples would tear. This same fastening method can make *your* package secure against rough handling or theft.

BOSTITCH MACHINE SAVES $10 PER DAY

Bostitching is economical, too. By using this Bostitch EHA stapling machine instead of sewing, and eliminating slow manual operations, the entire cost of the machine was recovered in a very few days. Note the special safety guard (see cut) developed by Bostitch engineers to avoid *any* possibility of injury to fingers.



BOSTITCH
for Protection and Economy



SHOOT FOR A BIGGER SALE WITH BOSTITCHED DISPLAYS

It's simple to card even large multiple items with a comparatively small number of Bostitch staples. Why hide your product in a box, when you can make even such complicated multiple units into attractive displays? Bostitch staples never conceal the selling message. And as for cost, Bostitch is way ahead of slower hand methods in carding items like these.

BOSTITCH
for Sales Appeal

BOSTITCHING... A word for better fastening

It means: using the right stapling, stitching or tacking machine, the right type and size of staple to get the most efficient fastening results. Bostitch engineers are prepared to study your packaging or carding problem . . . and help you "fasten it better with wire."

FREE FASTENING-ANALYSIS. Send samples of work to be fastened for recommendations without cost or obligation. Address Bostitch, 51 Duane Street, East Greenwich, R. I.

BOSTITCH Fastens it Better ... with Wire

STAPLING ··· STITCHING TACKING

MODERN PACKAGING
FEBRUARY 1942 VOLUME 15 NUMBER 6

Modern merchandising emphasizes the need of impressing the package on the consumer's mind. Will war changes give even greater prominence to the package in advertising? Outdoor advertisers have done an outstanding job of familiarizing shoppers with well-known brands. Note billboard devoted to package innovation for Vegetole Shortening. Chesterfield never misses showing the package. Heinz and Kellogg make sure their packages are known in self-service stores. Identity for Swan Soap, a new product, was vital.

Will 1942 events affect identity of your package?

The package will have a more vital part in 1942 and 1943 advertising campaigns than ever before in the history of advertising, according to all present indications. Changes in packages will be numerous, ranging in degree from minor color revisions, because of the shortages in metallic inks, to a complete overhaul of the package forced by the necessity of using entirely new materials.

The urgent need for revamping packages at this time, as a result of the war, intensifies the trend in package identification which has been going on for several years. Prior to the developing shortages in inks, paper, chrome, tin, cellophane and all the other materials that go into packages, manufacturers of national brands had been faced with the necessity of impressing their packages more and more on consumers' minds, because of the growth of super-markets.

Originally, when the super-markets began to make headway, they concentrated chiefly on national brands and through their low-cost methods of doing business, were frequently able to offer these brands at prices comparable with the chains' private brands. National brands were well-stocked and received excellent window and shelf display.

Entry of the corporate chains into the super-market field on an impressive scale, however, changed all this. The chains used the same techniques in their super-market and self-service stores as they did in the regular units. Their own brands, after a great deal of trial and error, were given proper

Now more than ever, almost every advertiser includes the package somewhere in his ads to establish identity, yet most common practice is to feature a human interest appeal first for wider readership. (See first BonAmi ad and Johnson and Johnson ad.) A striking exception to the latter procedure is Shulton in its advertising for Old Spice. By almost exclusive use of package appeal, this company has built a $4,000,000-a-year business since 1937. New uses for a product mean a prominent advertising place for the package. (See Bon Ami windshield-cleaning ad.) In trade papers the package often gets a prominent place. (See Listerine ad.) Treatment for a new package, like the White Rose Tea ad, may be increasingly important in 1942.

packaging and skilled shelf-arrangement, with the result that in many cases, sales of the chains' brands in the supers were greater than in their regular service units. Its private label goods are reported to account for about 50 per cent of the total volume of the A. & P., indicating the success that the chain is having with its own brands.

This development was bad enough but then the independent super-markets began to take a leaf from the book of the chains. The attractive margins of private brands proved a lure and since the chains had shown that they could be merchandised successfully, the independent supers decided to take a fling at them. On the Pacific Coast, particularly, the trend has been aided by the formation of voluntary cooperative groups by large numbers of independents, which pool their purchasing. In addition, packages have shown marked improvement and the latest techniques in shelf arrangement have been adopted.

A recent study by Outdoor Advertising, Inc., estimated that in 1940, the number of super markets for the entire United States had increased to 6,800 and the smaller self-service stores to 25,000. These outlets now do about 43 per cent of the total food business, with the supers accounting for about two-thirds and the small self-service units for the balance.

Faced with this problem of increased competition from private label goods, the national brand manufacturers have attempted to sharpen their advertising practices to overcome the handicap of poor display in the super-markets. Primarily, their aim has been to assure greater package identification by consumers and to time their advertising so that it is most apt to appear when a consumer is going to market.

Two things have been done. The Heinz Co., for instance, disregarded the previously accepted shopping days of the public and went in for large-space consistent newspaper advertising, in which the package was prominently displayed. Instead of concentrating on afternoon newspapers late in the week, copy appeared three or four times a week in both morning and evening papers. Sharp sales gains in the products thus promoted, resulted.

Another step adopted by many important food advertisers, such as Kellogg's, was the emphasis on poster advertising, close to the super-markets or on the main arteries en route to the major markets. On all such posters, the package was prominently displayed in color, frequently occupying as much as one third of the entire space of the panel.

Now, that's more or less the background of the trend towards promoting the package to impress it vividly on the minds of shoppers, so that even if it suffers from incomplete point-of-purchase cooperation, or inferior shelf-position, the customer will recognize it at a glance.

Obviously, this trend will be emphasized, if extensive changes in packages are going to be forced by the shortages of critical materials. It is apparent that to at least a minor degree practically all packages will have to be changed. Cellophane will be abandoned; metallic foils are practically out and many printing ink colors will not be available, In many instances, of course, the changes will probably be so minor that no great emphasis will have to be put on the package in advertising and promotional campaigns. In other instances, the package change may have to provide the entire theme, provided no changes in the actual product itself are forced.

There is still another consideration which may have to be taken into account in some industries, although not to the extent that it has developed in England. That is the need for making the package either so unique or distinctive that it cannot be copied. In England, for example, within the past year the use of cosmetics was so restricted that a considerable amount of counterfeit stuff was produced in packages resembling those of well-known brands. These cosmetics had a bad effect on the skins of users and created resentment against the companies whose names were counterfeited on the labels and packages. Whether such a development could take place here in view of our food and drug laws is questionable, but advertisers in some fields might be prepared against this eventuality.

Because package changes in most cases are still in the works, very little has been done in the way of laying out advertising plans to promote these changes. Where they have been completed, both advertisers and agencies are reluctant to tip off their hands to competitors. However, enough indications were given in a canvass of important advertisers and agencies to show in outline the pattern of future promotion of packages.

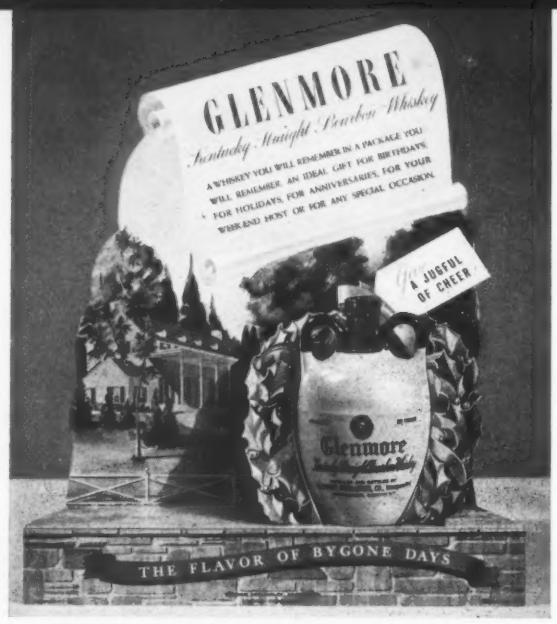
Here's what the vice-president of one of the largest agencies had to say about the problem:

"The chief work of our clients will be knocking the floss off some of the packages, which will have little effect on the recognizability of the package. There is a definite trend towards making the label more easily identifiable, particularly for food products, toilet goods and cosmetics. The amount of advertising devoted to packaging changes will be in direct proportion to the degree of change in the package itself. We will continue to promote the product itself and bring in the package in copy wherever possible."

In the accompanying table are ten actual products in which package changes will be made and the type of advertising scheduled for each.

Ten products in which package changes will be made and the type of advertising scheduled for each

PRODUCTS	CHANGES	ADVERTISING
Cigarettes	Elimination of gold panels on packages—later elimination of foil and cellophane	Point-of-purchase Billboards
Cereal	Simplified, larger lettering on package	Newspapers Billboards
Coffee	From tin to paper and glass	Newspapers, magazines, radio
Canned goods (3)	From tin to glass	Publications, promoting use of jar for home canning
Drugs	Dropping cartons entirely	Indefinite
Dog food	From tin to paper	Magazines
Cosmetics	Entirely new containers using little metal, no cellophane and fewer frills	Magazines
Candy	From tins to set-up boxes	Very little



This list is necessarily in sketchy form, partly because the facts may not all be disclosed at this time, but chiefly for the reason that the full impact of material shortages has not yet hit the packaging field. Stocks on most items are still in fairly good shape, although they are beginning to dwindle and it is likely that the bulk of the changes in packages will not develop until the second half of the year. Many, of course, are now in the hands of designers, and great secrecy, particularly in the cigarette field, is surrounding the new creations.

Advertising agencies are cooperating in these changes and some are conducting quiet surveys to determine the advantages and disadvantages of various types of packages as the public sees them. Now that a complete revamping of packages is forced in some cases, both the advertisers and agencies are anxious to come up with something that will, if possible, be an improvement over the old style containers.

As far as the promotion of package changes are concerned, most advertisers will probably tend to use the medium on which they have relied the most, supplementing it possibly with more window display and point-of-purchase material.

The efforts of individual media to capitalize on the projected package changes have not developed on a wide scale as yet. The outdoor field has done a good job in promoting the use of billboards in connection with the problem of national advertisers in super-markets, and may be expected to extend this effort where package changes are concerned. It is probably more vital to the outdoor field than to any other that they garner more billings from makers of packaged products, because of the dent in their revenue, created by the defection of the automotive advertisers. Outdoor relies normally for as much as 30 to 35 per cent of its billings from the automotive field, as against the 7 to 8 per cent that is the automotive share of newspaper linage.

Magazines will probably use the need for full reproduction in color of new packages as an argument for increased use of color. Newspapers have been getting more food advertising in the last year and will probably emphasize the point of package identification in their promotions to the grocery industry.

Consumer research studies generally have proved that advertisements with some human interest appeal for the product outrank in readership advertisements in which the package alone is given the leading position. Yet now more than ever before, most advertisers of packaged goods include somewhere in each ad an illustration of their package. A new product or a new package, of course, always requires more prominence to the package in advertising until the package is established in consumers' minds. Good examples of this are Swan Soap, a new product, and the new packages for White Rose Tea illustrated with this article. Just how much greater importance will be given to package identity this year will depend on the severity of material shortages and the changes that may have to be made.

Credits: Illustrations of displays and posters by Einson-Freeman Co., Inc.; Forbes Lithograph Mfg. Co.; Outdoor Advertising, Inc.; U. S. Printing & Lithograph Co.

For displays at the point-of-sale, the influence of the package is great. Here, the customer will select faster the package he sees and recognizes. Hence, the well-known house of Glenmore features effectively this new pottery container for Bourbon. Clapp's tell the story of strained food packages for babies and chopped food for young children with this child photographic tie-up. Hershey makes mothers conscious of its brand of chocolate syrup with these happy drummers on cans of Hershey products.

Latest cellophane restrictions

The Cellophane Order, L-20, issued November 8 to take effect January 8, has been amended to include products in 24 additional categories. This Amendment No. 1 issued January 11 applies to cellophane or similar transparent materials derived from cellulose having a gauge of less than .005 in. It prohibits the use of such material for the packaging or manufacture of the following:

1. Razor blades and sets, except for export purposes.
2. Cosmetics and soaps, including but not limited to soap and soap flakes, face powder and creams, perfumes, lotions, shampoos, beauty aids, bath salts, hair tonics and bay rum.
3. Textiles, including but not limited to hosiery, men's shirts and haberdashery, men's, women's and children's underwear, infants' wear (except infants' garments sterilized and so marked on the package), garters, suspenders, girdles, elastic goods, shoe laces, dolls' clothes, lingerie, sweaters, household goods (such as sheets, pillow cases, towels, dish and wash cloths, table linen, doilies, curtains), bedspreads, blankets, narrow fabrics, bolt and piece goods, notions, threads, yarn, polishing and dust cloths, lace, sanitary belts, ribbons and hair bows, cotton batting, string and twine; but not bandages, sanitary swabs and typewriter ribbons.
4. Rubber and rubber products, including but not limited to rubber gloves, bathing caps, water bags, rubber bands, erasers, garden hose, tires, jar rings and dress shields; but not including use as a substitute for Holland Cloth in the backing of retreading stocks for tires, as a protective cover for cement on tire reliners and patches, and as a wrapping on friction and rubber tape, and on nipples.
5. Hardware, metals and sporting goods, including but not limited to tools, builders' hardware, screws, tacks and other small count goods, lock parts, bearings, kitchenware, cutlery, auto supplies, zippers, hairpins, pins and needles, bathroom scales, fishing tackle and accessories, golf and tennis items, silverware and cordage; but not including use as a protection for metals, metal parts in export trade or protection for precision metal parts.
6. Paper and paper products, including but not limited to books and periodicals, labels, tags, index cards, advertising and display material, carbon paper, facial tissues, stationery, greeting cards, playing cards, matchbook covers, school supplies, fly paper, mats, punch boards, fibre waste baskets, jig-saw puzzles, lunch accessories (such as napkins, table cloths, plates and cups) and specialty papers; but not including scotch tape, or window correspondence envelopes.
7. Fountain pens, pencils and leads.
8. Jewelry, clocks, watches and cameras.
9. Laundry and dry cleaning.
10. Candles and wax products.
11. Electrical equipment, including but not limited to switch plates, batteries and flashlights, washing machines, refrigerators, vacuum cleaners, stoves, bulbs, flat irons, toasters, heating pads, lamp cords and radios; but not any use in manufacture of the equipment.
12. Wood and wood products, including but not limited to clothes pins, matches, wooden ware and dishes, forks and spoons, but not including medical tongue depressors and swabs.
13. Leather and leather products, including but not limited to shoes, belts and wrist bands.
14. Brushes and combs, except tooth brushes.
15. Bottled beverages, including but not limited to alcoholic beverages, carbonated beverages and extracts, but not including special transparent caps for protection of government seals to cover revenue stamps or spots or seals on bottles containing fluids which normally leak or evaporate.
16. Bottled foods, including but not limited to sauces, salad dressings, fruit juices, pickles, olives, preserves, honey, flavorings and food specialties.
17. Canned goods of all sorts.
18. Flowers, florists' plants, wreaths and garlands, natural and artificial.
19. Decorations and novelties, including but not limited to molded paper hats, molded Christmas bells, molded flower pot covers, bows and rosettes, soda straws, shelf edgings, household rolls, gift wrappings, Christmas snow, seasonal bands, streamers, Easter grass, Easter egg dyes, decalcomanias and cigarette tips.
20. Cleaning material, including but not limited to soap powder, cleaning compounds, polishes, metal sponges, mops, brushes, shoe polish kits and brooms.
21. Cigar box and candy box overwraps, where used as a secondary wrap to protect box or carton rather than the product.
22. Bowl covers, household dyes, sewing supplies, coat hangers, shoulder bags and other garment covers, dolls, cake decorations, toys and games, pipe filters, coin wrappings, natural and cellulose sponges, powder puffs, hair nets, printed doilies, hair waving equipment, brake linings, moldings, paints, molding clay and clay products, but not including photographic films.
23. Cigarettes except where foil is omitted from the package either by order of the Office of Production Management or at the option of the producer.
24. Plastic products.

Ruling on existing materials

The order also prohibits the use of cellophane or similar transparent materials derived from cellulose thicker than .005 in. as a substitute for the thinner gauges. Existing stocks which were in the hands of users prior to January 8 may be used up and suppliers of the materials who have stocks may make deliveries of such materials which are so cut, processed or printed that they cannot be of use to anyone else. The Amendment also contains an appeal clause under which undue hardship may be claimed with a view to obtaining relief.

This Amendment takes effect immediately to continue in effect until February 15, 1942, but it is presumed that other amendments will be issued before that time.

★ ★ WASHINGTON ROUND-UP ★ ★

Latest developments in the packaging situation as gathered by our correspondent in offices of various government agencies in the nation's capital.

★ ★ ★

What total war means to every branch of American industry is now being brought home through the daily grist of orders coming out of Washington, orders controlling virtually every sort of business activity.

OPM has been abolished in Donald Nelson's new set-up of the War Production Board, but all orders and regulations of the priorities system remain in force and must be observed.

To meet President Roosevelt's tremendous war production program will require every pound of material, every piece of factory equipment, that can possibly be taken from civilian business and devoted to war use. This means that all industry is at the command of the government. What happened to the automobile and tire industries is just a sample of the disruption to business necessitated by the war. There will be a lot more of what is coming to be called the "CCC policy"—curtailment, conversion, conservation. Output of civilian goods is being curtailed, plants are being converted to produce war materials, and materials of all sorts are being conserved.

The packaging industry is hit all around. Materials to use in packaging are being restricted. Articles to go into packages are being curtailed. Means of distributing packaged goods threaten to be limited. One thing reacts on another. Restrictions on the use of sugar and the production of whisky mean a reduction in the beverage business and its use of containers. Restrictions on the sale of tires may soon mean that merchants can't deliver packaged goods and that motorists won't be buying packaged lubricating oil and polishes. Expansion in the output of powder threatens curtailment of pulp available for making paper. Japanese activity in the South Pacific means we may get precious little more tin, rubber, burlap, and manila cordage.

Drastic action for hoarding

Manufacturers, converters, users and distributors of paper products, paper and pulp have been warned by OPM that "drastic action" will be taken against any person who permits inventories to go beyond a "practicable working minimum."

The warning, issued in the form of a bulletin, was signed by Norbert A. McKenna, chief of the Pulp and Paper Branch; George A. Renard, chief of the Printing and Publishing Branch, and Walter C. Shorter, chief of the Containers Branch.

Reports reaching the three OPM branches, it was stated, indicate that some processors are building up inventories far in excess of minimum requirements and, in some instances, additional warehouses have been rented in which to store the excess.

"Due to the unprecedented demand in 1941," Mr. McKenna said, "the net supply of all types of paper at current levels of operation has risen to more than 21,000,000 tons.

"It is believed," he declared, "that a portion of this demand has resulted from desire to increase inventories of supplies of pulp, paper and paper products as well as materials used in the manufacture, printing and publishing thereof, brought on by fear of possible curtailment or increased prices."

The three branch chiefs pointed out that Priorities Regulation No. 1 places a strict limitation on inventories and prohibits a user from accepting delivery of materials for inventories "in excess of a practicable working minimum."

Calling attention to a provision of the regulation requiring the filing of reports on inventories, the branch chiefs asked all concerned who have current inventories in excess of working minimums to report to any one of the three branches with an explanation, if any.

Violators of the regulation, they warned, may be deprived of priorities assistance in obtaining any supplies for their operations and have their inventories commandeered. In addition, in cases of aggravated violation, they said, orders may be issued by the Director of Priorities prohibiting the offenders from dealing in the materials covered by the orders which have been violated, for a specified period.

Price schedule for barrels and drums

Price Administrator Leon Henderson early in January, modified the price schedule (No. 43) covering used steel barrels and drums in order to assure dealers and peddlers an adequate operating margin.

Major effect of the change is to establish a ceiling price of $1.25 each for "raw" used 18-gauge steel barrels or drums of a capacity of from 50 to 55 gallons when sold by the emptier to "any person."

Formerly, the schedule only imposed this ceiling price when such drums were sold direct to users. Several minor amendments also are contained in the revised schedule. Prices of drums of other capacities are ceiled at the lower of the prices quoted by Rheem Mfg. Co. and Wheeling Corrugating Co. as of October 1, 1941.

Conservation plans for tin

One of the first war actions of OPM was to take charge of all supplies of tin in the United States and all future imports through general preference order M-43. Under this order imports of tin may be sold only to the Metals Reserve Co. or other government agencies and all supplies of tin in this country may be sold only as directed by the Priorities Division of OPM. The purpose of this order is to stretch the supply as far as possible during the emergency. The expectation is that tin containers will be allocated the major portion of the supply. The OPM set to work at once drafting a conservation order to limit the use of tin in containers and the uses to which tin lined containers may be put. To assist in drawing this order OPM consulted on December 29 with the conservation sub-committee of the can manufacturers industry advisory committee. This committee sub-

mitted a definite program for reducing the use of tin, but final decision was left with OPM officials. The general expectation was that the conservation order would be even more drastic than the committee's recommendation.

The committee's proposal called for a reduction of tin used by the industry from 36,950 tons in 1941 to 31,900 tons in 1942 and 28,750 tons in 1943. Under this program, the quantity of tin available for packers' cans would be reduced from 28,000 tons in 1941 to 26,400 tons in 1942 and 24,300 tons in 1943. Tin for general line cans (beer cans, oil cans, etc.) would be reduced from 8,950 tons in 1941 to 5,500 tons in 1942 and 4,450 tons in 1943.

The recommendation also calls for an allocation of 3,260 tons of tin a month to the industry for the first eight months of 1942, and 1,575 tons a month for the remaining four months.

The proposal would eliminate the use of tin for tobacco containers and make substantial reductions in the use of tin for containers for coffee, shortening, paint and personal products such as talcum powder.

Representatives of the OPM steel branch warned that the amount of steel plate allocated to the can industry may be cut. So far the can manufacturing industry has not been seriously affected.

Lead under complete government control

Somewhat similar action was taken by OPM regarding lead. General Imports Order M-63 put all supplies of lead and a dozen other minerals, which are chiefly imported, under complete government control. This was followed by Conservation Order M-38-C limiting the uses to which lead may be put. Lead foil was included in a list of articles in which no lead or lead base alloy may be used after April 1, 1942. Until March 31 manufacturers of foil may continue to use lead or lead base alloy but must reduce their use of lead to 50 per cent of the amount used either during the third quarter of 1941 or the fourth quarter of 1941 at the election of the manufacturers. The only exception to this is that lead foil may be produced for use in condensers, electro-typing, or molding lead.

New cellophane restrictions

The cellophane order, limitation order L-20, was amended January 10 by increasing the list of articles which may no longer be packaged in cellophane. This order was to expire February 15, but another amendment was issued before that date. This Amendment No. 1, in addition to listing 24 broad categories of articles which may not be packaged in cellophane, also clarified the number of questions raised by the original order. It does not place any restrictions on the use of rigid plastic sheets in packaging but it specifically prohibits the use of transparent materials derived from cellulose in gauges of .005 inch or greater as a substitute for cellophane. The amendment also permits an appeal to the chemicals branch of OPM on the part of any person who considers that compliance would work an exceptional and unreasonable hardship upon him. [Elsewhere in this issue will be found full list of packages and products affected.]

Regulation for burlap

Burlap is another packaging material brought under complete government control as a result of the war in the Pacific. Conservation order M-47 sets up a system of quotas for importers, importing bag manufacturers and the non-importing bag manufacturers. Two-thirds of all future imports of burlap will be set aside on a stock pile under the control of OPM. Stocks of burlap now in the country are regulated by prohibiting the use of burlap in all industries except the manufacture of bags for shipping agricultural and chemical products.

No restrictions on glass yet

So far there have been no restrictions on the manufacture or use of glass containers but Lessing J. Rosenwald, chief of the Bureau of Industrial Conservation of OPM, has asked both manufacturers and users to conserve raw materials by simplifying sizes, shapes and finishes wherever possible. He pointed out that a wide-spread and effective simplification program would reduce the variety of sizes and designs now in use and thus permit more efficient use of manpower, fuel and equipment, as well as achieve important savings of critical materials, such as soda ash and other chemicals used in glass manufacture. Another objective of the simplification program is to reduce the quantity of molding equipment used in container manufacture and to conserve paper used for shipping bottles and jars.

Oil industry joins in package conservation

The petroleum industry has joined in the packaging conservation campaign through a series of recommendations drawn up at the request of Harold L. Ickes, Secretary of the Interior and Petroleum Coordinator for National Defense. Among other things these recommendations standardize and reduce the number of steel drums and cans used in the distribution of petroleum products, place limitations on the use of certain containers and impose deposit charges on re-usable drums to insure their prompt return for shipping purposes and to prevent their use for storage. In the recommendations on cans the industry is directed to use black iron or terneplate instead of tinplate for all purposes where such containers are suitable. The use of cans in distributing lubricating oil is restricted by a provision that the volume of 1-quart cans to 5-quart cans must not be in excess of the ratio of eight to one. The oil industry is also urged to distribute its products in bulk rather than in packages whenever possible. The recommendations do not touch on the subject of glass containers used by the oil industry.

Price ceilings affecting packaging

The Office of Price Administration has been very active since the outbreak of war and several of its price ceilings and requests affect the packaging industry. A number of important changes were made in Schedule No. 30 which fixes ceiling prices on various grades of wastepaper, used corrugated containers and similar waste products in the general paper field.

More than seven hundred makers of a long list of converted paper products were asked not to raise prices above December 15 levels without one month's advance notice to the OPA. Among the products covered in the request are: envelopes, drinking straws, tags, gummed paper, cups and liquid-tight containers, glazed and fancy papers, dishes, spoons, plates, lace paper, milk caps, sanitary closures and paper milk containers and tissue products, such as toweling, napkins, patterns, crepe paper and facial paper.

An emergency price ceiling was applied to second-hand burlap and cotton bags to prevent (*Continued on page 100*)

BRITISH COMBINE

The R.A.F. has a depot where all wastepaper and other materials are collected and forwarded to help in great drive to save all waste. Photo shows Women's Auxiliary Air Force girls bringing out cartons of empty tins, food wrappings, etc., from cookhouse.

Britain's two years' experience with shortages

*by Denys Val Baker**

Well, now you are in it, too. And now that your American packaging industry is face to face with the many problems created by war, I can only hope that you are spared some of the headaches suffered by your British confreres in the turbulent months of 1939 and early in 1940, before we were able to adapt ourselves to the new conditions. I also hope that those who have read my regular notes will glance through them again whenever they are confronted by new and puzzling problems, for they may find many unexpected answers from the results of our (sometimes bitter) experiences.

Here and now, I do urge all American packagers, all sections of the industry (carton makers, paper mills, canners, plastics manufacturers, printers, glassmakers and others) to concentrate attentions on attaining (1) centralisation of control and (2) standardisation of production, as far as possible. If you can go so far as to get together *one* supervising committee, representative of all sections of your packaging industry, so that all efforts can be coordinated (in close conjunction with the appropriate government departments, of course) you will save many months of wasted effort which were experienced over here. Wartime is a time to forget competitive jealousies. It is essentially a time for wholehearted cooperation. I would suggest that each section of your packaging industry (if it has not already done so) should set up a wartime production planning committee to ensure that the wartime productive capacity of that section is put to the best use and that from representatives of each of these committees be formed the supervising committee for the whole industry.

Over here we realize that your entry into the war will have certain unfavourable repercussions on our own packaging affairs. We shall expect less supplies of tin, paper, possibly of certain raw materials for plastics. But, fortunately, today we are at last organising on a real war footing and economy is becoming a word with a real meaning.

There are some interesting facts about the changeover of our industries to a war footing. During the past six months, more than 40,000 factories have been listed with a view to transferring from non-essential to essential war production. Already 4,000 of these have been allocated for new work. This means that 50,000,000 more square feet of floor space are now used for different manufacturing processes or storage than was the case at the beginning of 1941. The changeover has been remarkable in some cases. For instance, torpedoes are now being produced in what was a boot and shoe factory. Anti-gas and medicated ointments are now being manufactured in a former beauty cream plant. Aero-engine parts are coming from a hair-pin factory and a manufacturer of tops is now producing aeroplane frames. These changes have been brought about in what is considered an "unusually short time." One factory, for example, changed from the production of novelties to the manufacture of aeroplane parts within a period of five months.

A large part of the 50,000,000 square feet of floor space is

* Managing Editor, "Shelf Appeal," London.

being reserved for emergency production. Thus, there is a large number of these emergency factories with plants ready to swing into production at any time. In other cases, factories are being held ready for installation of salvaged machinery from bombed plants, so that production can be carried on with the least delay. All this organisation on a national basis has entailed sacrifices on the part of hundreds of firms. In some instances old-established firms have been closed down. It is admitted that the reorganisation has not been equitable, but a detailed record is being kept of what has been done, so that immediately after the war a scheme of reconstruction can be set in motion.

It is difficult to pick out industries where the changes have been greatest. Great reductions have been made, however, in industries manufacturing carpets, corsets, cutlery, glass, gloves, hosiery, lace, leather, pottery, toilet preparations, boots and shoes, cotton, paper, silk and woolens. Besides reduction in output of these and other non-essential industries, the government's policy has resulted in the release of large amounts of labour and large quantities of valuable raw materials. Our most important developments in labour have probably been fully reported in the American newspapers—i.e., call-up of girls between 20–30, abolition of reservation of men by age groups and calling up of many tens of thousands of hitherto reserved men, registration of men up to 51 for war work. Today in Britain every single man possible is being put into the Services. Only absolutely key men and men over 50 or so, are being left in ordinary work. Moreover, firms are urged not to employ young girls to replace the men, but only those over 30. All younger girls are being put in armaments works or other essential industries or into the Services. In the face of much criticism, the government is strictly adhering to its de-reservation scheme and the extent to which it is going can be seen from the fact that the government has just called up for Army service 10,000 young farm workers, all skilled men in an industry which demands lengthy training for full proficiency. Nevertheless, the government refused to exempt them and promised that their places would be adequately filled by 10,000 Land Girls. I hardly need add that these labour troubles extend very much into the packaging industries. Indeed, carton firms, board mills, display firms and advertising agencies are already largely staffed by women—and still they are suffering. Advertising agencies had replaced their men by young, well-trained women, but now these are being called up, pleas for exemption being met with advice to secure and train older women. Large numbers of women have been taken into the printing industries and a certain amount of reservation is being allowed for those employed as productive workers in book-binding, etc., although packers and office staffs are not exempted.

I would like to say one brief word about the enormous extension of government advertising. About £3,000,000 has now been spent by the British Government on advertising since the war started, including some £800,000 by the National Savings Committee, about £600,000 by the Ministry of Food and £400,000 by the Ministry of Information. More than 20 different departments are advertising and most of them use press, posters and displays. This trend may have some significant developments, and I think one of them is illustrated by the issuance by the Ministry of Food of a Food Substitutes (Control) Order, 1941, which regulates the making and the marketing of commodities under this heading. It rules that no person shall sell any food substitute "except in the container and under the label and description under which it was sold by the manufacturer" and insists that when an application for a licence is made, it has to be accompanied by specimens of labels, literature, packs, etc. This order has been applied drastically and out of about 1,000 firms which are making food substitutes, licences have been granted to some 250 only. It is true that there was a strong case for some form of control, since many worthless products were being introduced, but advertising circles feel strongly that the new Order has introduced a form of censorship of a section of advertising by a government department, and that this "thin

Mono Kups recently made in London. These are being used by the dairy trade and other food distributors. Names of towns, often in the news, are on some of the cups. Several cups contain "waste" paper which has been repulped several times. In center is burned out incendiary "pencil" bomb which failed to interrupt plant operations.

edge of the wedge" bodes ill for the future, raising the prospect of British advertising being under the same state of control as that imposed by the American Federal Trade Commission.

Turning to packaging, I have to report the arrival of the most drastic Paper Control Order yet to see the light of day and we have had 35 previous ones that were all bitter pills. No. 36, as it is sinisterly termed, introduces further cuts in the amount of paper allowed for publications, bans directories (where entries are paid for), reduces by one-half the maximum size allowed for posters (down to 1,200 square inches), bans all posters relating to the sale of goods, bans the issuance of free advertising circulars relating to the sale of goods or to any profession, trade or business—and makes it illegal for any person in the United Kingdom to "wrap or pack any article in connection with or for the purpose of any sale or the rendering of any service for remuneration, insert inside any wrapping or packing or carton or container any advertising matter." That is to say, soap, shorts, pants, vests, handkerchiefs, other articles of clothing and numerous other articles that are normally wrapped in brown paper are handed over loose. The only exceptions are foodstuffs and some of those are sold loose (i.e., bread). Thus, the only packing of goods that is permitted is that done by the manufacturer. What is going to happen when we reach the stage where manufacturers are unable to obtain packaging for their products, heaven only knows. At any rate, this latest Order has given an extraordinary stimulus to the drive for salvaging wastepaper, which is now organised on an unprecedented scale. Nearly every industry (confectionery, cinemas, advertising, newspapers, retail shops) has set up its own salvage committee, with special area officers who are responsible for organising the collection of every scrap of wastepaper made available by firms in the industry. So well have the arrangements gone that it is now expected that instead of the 100,000 tons of wastepaper asked for by Lord Beaverbrook, there will be more likely a total of 1,000,000 tons available in the near future. Moreover, the Ministry of Supply has taken steps to see that all wastepaper is put to good use, having issued a special Paper Order forbidding any producer of paper, except under licence or special or general direction issued by the Ministry of Supply, to use any wastepaper as a material in any process of manufacture. This will ensure that mills engaged on government and priority work will get their supplies of raw materials. Of course, wastepaper is used not only in the making of fresh paper, but also cardboard boxes, cartons, strawboard cuttings, old bills, leaflets, chocolate bar wrappings and the other diverse forms of paper that are arriving at the repulping mills are being used now for about 50 different industries, including munitions and armaments production.

In connection with the drive for more paper, considerable interest has been aroused by an article in World's Press News, contending that all the paper needed for munitions could be obtained from straw if the necessary machinery for dealing with it were made available. "A single plant to treat straw could provide more paper for munitions than could be hoped for from the most intensive salvage. As for straw, there is enough available to meet munition requirements. Paper mills equipped to turn straw into paper have more straw than they can handle and there is plenty of straw still available to them. . . . Progress made since the war started in producing paper from straw has been remarkable. For munitions purposes 65 per cent of every ton of straw can be turned into suitable paper."

A controversy has arisen between the Paper Control and Boxfoldia, Ltd., probably our biggest carton firm, whose managing director, C. H. Foyle, claims that manufacture of cartons needed for essential purposes is held up for lack of chipboard, although baseboard can readily be obtained for semi-luxury cartons. The Paper Control, according to Mr. Foyle, believes that coating Foudrinier board effects an economy in fibre. Provided less fibre is used, the Paper Control does not mind carton makers having to pay £50 or more per ton instead of £15.10*s*.—the difference in price being possible largely because "converted" material is not subject to price control. Nor is the Paper Control interested, claims Mr. Foyle, in the fact that to produce this converted material, wastepaper is allocated to Foudrinier standard papermaking machines which did not previously handle board material. Foyle claims that tests show that contrary to coated board saving fibre, more fibre is necessary to secure strength and stiffness equivalent to that obtained in chipboard. Tensile tests show that coated Foudrinier board is 33 per cent weaker than chipboard of equivalent thickness and 33 per cent weaker in pressure tests.

An interesting packing development has been the appearance on the market of large quantities of a substitute for baling wire. Supplies of actual wire for baling machines are very difficult to obtain and a great welcome has been given the new material made by British Ropes, Ltd. It is a fibre product named Balax and is composed of a number of strands of fibre twisted loosely into a rope. All the separate strands, of which there are 24, are detachable. Four strands are used to tie light bales, and 8 strands for (*Continued on page 96*)

Yardley's advertise extensively in trade papers in an endeavor to get dealer cooperation in saving their cartons.

What woods are best for military shipping boxes?

*by T. A. Carlson**

During the first World War shipping containers played a vital role, just as they are doing now. Early in this country's entry into that conflict, specifications for large quantities of wooden boxes were submitted to manufacturers for bid, but no bids were received. The specifications called for white pine boxes exclusively. With something of a shock, it was discovered that this species was available neither in the quantities needed nor to the bulk of the box industry in all sections of the country.

The Forest Products Laboratory has undertaken an extensive container program for the purpose of assisting the Ordnance Equipment Division of the War Department in redesigning and improving containers and crates for all types of army material and Lend-Lease shipments. The aim is to standardize specifications for such containers in order to assure the safe shipment and storage of materials.

A wealth of information covering the fundamentals of good container construction has been unearthed by research at the Laboratory during the past 30 years. Such practical details of good construction as proper nailing, selection of woods for various boxing and crating purposes and sturdy, economical designs for containers have been carefully worked out. It is the purpose of this article to set forth briefly some of these principles because of their importance in the war program.

Changes in the specifications by the Forest Products Laboratory, which permitted the use of a wide variety of species interchangeably, quickly solved the problem. Good boxes were immediately forthcoming from our factories. These changes have had a profound effect on the American box industry ever since. And today, with another production crisis facing the nation, they are once again thrust into prominence by prevailing conditions.

Early container studies at the Forest Products Laboratory showed that proper construction of containers is all-important and that wood species of approximately similar properties can be used interchangeably. This development led to the classification of woods for boxes into four groups—a classification widely published and generally accepted.

Recently, however, there have arisen some questions regarding these groupings by species and the significance of the arbitrary numbers 1, 2, 3 and 4 used to designate the four groups.

As indicated, the purpose of these groupings was to lump together those woods which are generally alike in their strength qualities, nailing characteristics and like factors which affect the building of a sturdy box for different shipping needs. These groupings still hold good, although there may be some changes in the quantities and availability of different species. One important function of the groupings is to broaden the species base, to make available all suitable species, even if they exist only in limited quantities.

In classifying the common woods into four groups, consideration has been given to their nail-holding power, tendency to split in nailing, strength as a beam and shock-resisting capacity. While, in any classification of this sort, there are certain to be some differences in properties among species within a group, and some species near the border line between groups, the classification nevertheless is remarkably effective. Hence, this grouping (*Continued on page 96*)

* In charge, container investigations, Forest Products Laboratory Forest Service, U. S. Department of Agriculture.

Machine guns are packed in wood boxes like these and are shipped daily from General Motors plant for delivery to the army.

PACKAGING PAGEANT

1 Pond's Extract Co., Inc., made effective use of colorful folding cartons for its recent gift line to present their newly redesigned Pond packages. Designs in various patriotic color combinations are modernistic and feminine in character. Interior layout is skillful. Beauty aids are held in position by a series of trays secured to the cartons, which are double-walled for full protection of contents. Cartons by The Ohio Boxboard Co.

2 Blackout Candles, in a strikingly timely package have been introduced by Will & Baumer Candle Co., Inc. These candles for emergency lighting use come packed 12 to a kit, which is particularly effective for counter display. Box is appropriately done in black and white, with amusing line drawings around the sides. Each candle is equipped with a pedestal-like base which holds the candle upright without the use of a candlestick. Kits by J. F. Friedel Paper Box Co.

3 A true-to-life shell, made of molded pulp and tinted realistically, reveals an attractive adaptation of an available material for counter containers used by Dorothy Gray for Seashell Make-up items. Last fall, it will be remembered, this house received considerable publicity for its "Nutshell" container made of similar material. Since the rouge and lipstick come in a variety of tropical colors designed for resort wear, the box complements the product's use with its suggestion of the seashore.

4 Labels for the Red & White prune cartons have appetizing vignettes of prune dishes on the front panel together with recipes for making them. The back panel has a premium offer of a volume from a set of eight of the New American Encyclopedia. Twenty-five cents and a label entitle the customer to the volume desired, or the books may be obtained at the same price from the grocer whenever Red & White prunes are purchased. Labels by Crocker-Union Lithograph Co.

5 The F & M Schaefer Brewing Co. calls attention to its 100th anniversary with these printed bottle caps. Lettering is in white against a red background. These caps are used on all the company's beverage bottles and keg-like cans. Every time a purchaser opens a bottle of beer, he notes that Schaefer beer has been made by the company for 100 years. The cap has the news value of all centennials and appeals to the average consumer's sense of prestige. Cap by Crown Cork & Seal Co.

6 The LaChoy twins—Chinese dinner with meat and the meatless Chinese dinner—are packed in cartons which facilitate building of shelf and counter displays because they are horizontal instead of vertical in form. The two types of dinners are distinguished by using the same colors but reversing the placement. The "complete-meal-in-a-carton" idea is suggested to the customer by illustrations of the contents on the front and back panels. Stout end-closures prevent bottom flap tearing and spilling the food. An additional safety factor is provided by the self-locking flap. Cartons by Sutherland Paper Co.

6

7 These two gift packages for service men are called "Oodle Boxes." They contain 19 and 24 practical items, such as toothpaste, soap, foot powder, shoe polish, etc. The boxes are designed to stretch the service man's pay and take the guesswork out of gift buying by his family and friends. The cartons are self-mailers and are covered with amusing cartoons of soldiers. Printing is done directly on the cardboard sleeve into which the lidless folding box fits. It is sealed with transparent adhesive tape for shipment. Cartons by Acme Folding Box Co.

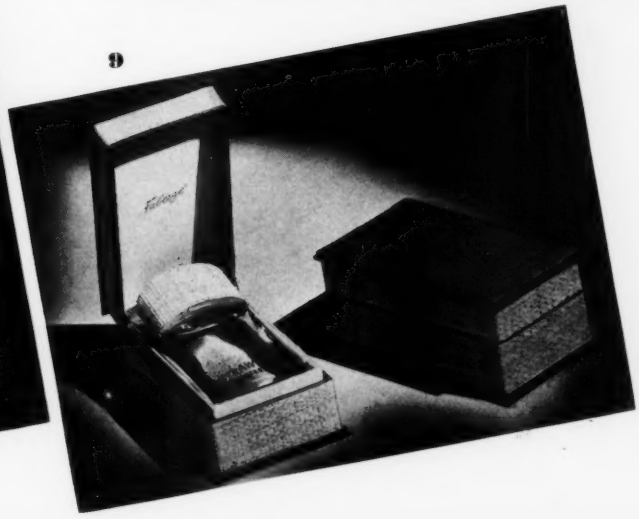
7

8 The Diversey Corp. brings out its Diversol Bactericide Disinfectant, widely used in dairies and on farms, in these sparkling glass containers with an easy opening, positive re-sealing screw cap. The fresh, clean appearance of the package emphasizes the product's purity. Red, label copy is applied directly to the glass and the cap is printed in white and blue. Metal cans in the background are the old package for Diversol. Bottles by Owens-Illinois Glass Co. Caps by The Aridor Co.

8

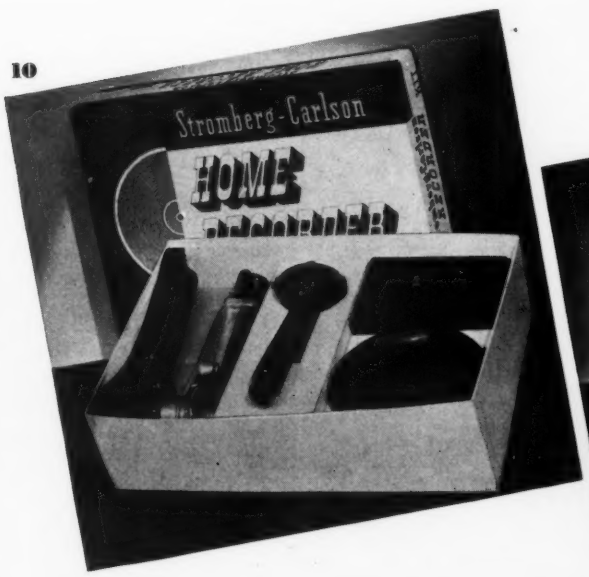
9 Fabergé is ready for spring with "Straw Hat" perfume in a glass bottle with a real straw bonnet. The oblong set-up box is covered with natural straw around the sides with a top and trimmings of scarlet linen—a clever use of available material for box covering. The lid is hinged and box is padded so that it may be used later as a case for costume jewelry.

9



10 The Stromberg-Carlson Tel. Mfg. Co. has begun shipping to its dealers throughout the country the company's first home recording kit. All necessary apparatus for recording is packed in this telescope type box with an inner tray, die-cut to hold the various items. A phonograph disc is the basis for the design on the lid. Maker's name and product identification are printed in clear, legible letters across the top and on all four sides of the lid. Designed by Frederic S. Grover.

10



Cakes in containers like these appeal to the gift buyer and to the homemaker who can use the household ware many times for bakery products.

Holiday dress for bakery products

"Good to eat and good to keep" might well be the slogan of the Larsen Baking Co., Inc., one of the larger bakeries in Brooklyn, N. Y. This company puts cookies, cakes and other foods into handsome re-use containers which serve as constant reminders to the housewife of its many baked goods.

The idea of putting products in packages that can be used again in the home is not necessarily new, but Larsen's particular method has a unique slant to it. Customers find, for instance, that their fruit cake for the holidays has come in a glass and metal container that may be used again and again for keeping bread, cakes and pies fresh on kitchen or pantry shelves. A decorated party cake will be packed all ready to serve on a Lazy Susan which will hold sandwiches, appetizers or cookies many times afterwards for other parties.

Thus through wise choice of re-use containers, the Larsen bakery establishes sales continuity for its products. Oftentimes containers intended for re-use by the customer divorce themselves completely from the product they held originally, once that product has been used. By tying-in its holiday packages with subsequent household use for similar products, Larsen obtains the full benefit of its original investment for unusual and striking articles.

Aside from items for which the housewife will find need, the baking company packs sugar cakes and cookies and other easily digestible confections, particularly suitable for children's diets, in toys. Hallowe'en, Easter, Christmas, Washington and Lincoln's birthdays have associations with foods of one sort or another and suggest their own holiday treats for children. For many years candy manufacturers have made special appeal to children's appetites through containers which were in reality toys. But bakeries as a whole were slow to adopt this method of gaining a children's market, although confectioners had realized vastly increased sales through this means.

The Larsen Baking Co., however, reasoned that families

usually build holiday activities around children. Parents plan gifts for their youngsters at such times and try to observe their preferences as much as possible. Youngsters on their part freely advise fond parents of what they'd like to have. Cookies in a plain box are desirable, but cakes in a basket on the back of a push-pull toy duck or rabbit capture the heart as well as the stomach of any child. And many days after the cookies have been eaten, the small fry will play with the toys. They will remember very well, too, that the cakes and the toys came together. Next time, they'll probably ask for the kind of cookies that come with a duck. That will mean another sale has been made for Larsen's products. At least, that is the way it has worked out, according to the company's account books. Children's holiday packages have boosted sales not only for the holiday time, but also for those ordinarily slack periods when there is no unusual urge for the consumer to buy.

Lawrence E. Swensen of the Larsen Baking Co. first instituted these methods of packaging baked foods a number of years ago when he set out to solve the company's unusually difficult marketing and packaging problems. The company belongs to the house-to-house wagon distributor group of the baking industry. This group is confronted, perhaps, with the most difficult marketing and packaging problems of the whole industry. Larsen began to gain volume sales and recognition in the industry by pioneering in the field of fruit cake gift packaging. In 1939 the company won a Modern Packaging All-America award for its packaging. The results were so extremely satisfactory that the company expanded its efforts and commenced to use special gift packaging for more and more of its baked goods. Mr. Swensen designed attractive new containers for some of the products and in other cases adapted available containers to his particular uses.

At first the re-use packages were made of chrome or wood. Then, as field research revealed the change in consumer taste from these materials to copper and brass, the Larsen company adopted a copper basket for its fruit cakes—a basket that would make a center piece for the table, a fruit dish or roll server. With the introduction of this package, the fruit cake sales in poundage went up approximately 60 per cent over the previous year, the company reports. That was in 1939, the same year the company brought out a cookie assortment in a gleaming copper bowl which could be used as a hanging basket for potted plants.

Each year the baking company (*Continued on page 103*)

Children's interest is immediately awakened by these holiday packages for cookies. A toy rabbit pulls a cart filled with them. The Jack O'Lantern face, printed in traditional colors, will gladden the heart of any boy or girl on Hallowe'en. The Santa Claus boot of molded paper pulp will be a handy receptacle for storing small toys after Christmas is over and all the cookies in the big boot have been eaten.

The flower pot and the brown bean pot hold Larsen's deluxe assortment of cookies. The flower pot is of brass engraved around the sides with a conventionalized design. The brown jar is of pottery and it may be adapted to a variety of household uses. It may be kept on the pantry or kitchen shelf and used for cookies or crackers. Since the jar also withstands heat, it makes an excellent casserole for oven cooking.

Dealer Unit

This unit combines container, product and display material in a package designed for maximum functionalism and conservation of materials. Six hand-painted display cards are held together at the top and bottom by paper-covered cardboard frames. The cards form the walls of the box-like container for a Metpen, combination dealer unit, consisting of the pen, 3 rolls of Metleaf in a rigid transparent plastic box, a display stand, the display cards themselves and their metal holders. There are no excess pieces in the unit—no carton to throw away, no extra wrappings. Metpens are specially designed for applying personalized lettering to the leather envelopes enclosed and for other purposes.

The display stand, covered with a bright red paper, holds leather envelopes which may be re-used by the buyer as a wallet, personal identification case, etc. The envelopes are set up in the display stand near the Metpen in its bright coral-colored box. The display cards, which tell the story of the pen, may be distributed about the store. Each of the six cards is different in design and bears a special sales message. Design is printed by silk screen method. The whole series may be used in windows or spotted at strategic points on counters and ledges inside the store. The metal card holders, which are part of the unit, make it possible for the dealer to set up the cards anywhere he likes.

Credit: Paper frames, set-up box and transparent box by Blum Paper Box Co. Display cards by Creative Printmakers Group. Metal holders by American Globe Wire Works, Inc.

DESIGN HISTORIES

Lined Drum

An outstanding development in functional package design is a 1-kilo drum for the packaging of Merck & Co., Inc., Vitamin B_1, thiamine hydrochloride. This product requires a container which assures absolute cleanliness and complete protection from all extraneous matter.

The drum offers such protection without the use of the separate inner packing commonly found in containers for thiamine hydrochloride and similar products. The drum is of fibre and features a complete lining of rubber hydrochloride which adheres tightly to the drum walls. As a further protective measure, there is an inner cover of transparent plastic sheeting.

Both these measures in chemical packaging insure cleanliness and purity of the product. Another advantage of the drum lined with rubber hydrochloride sheeting is that of complete accessibility. A fibre drum of this type permits the easy extraction of all the contents. The very last tenth of a gram can be removed from the container.

Drums of this construction are efficient containers for the shipment of many products used in defense and lend-lease activity. The can is telescope type and makes a tamper-proof mailing case. Label applied over joint seals package.

Credit: Fibre drum by The Container Co. Inner cover by Clover Paper and Transparent Boxes, Inc Rubber hydrochloride sheeting by The Goodyear Tire & Rubber Co

Ice Cream Carton

This folding carton for Meadow Gold ice cream pies has all the attractiveness of the octagonal form without having the usual 7 flaps which are turned in to make an eight-sided box. Because it takes time and involves considerable manual labor to set up the ordinary octagonal carton, this type has been less frequently used than other kinds of folding boxes. However, the octagon shape is particularly well suited to hold round cakes and pies securely.

The Meadow Gold carton is made of a single blank of cardboard. Corners are creased and scored in such a way that even inexperienced workers may fold them in quickly and easily to form an eight-sided container. The tricky way in which the corners fold inward also lends extra strength to the top and bottom surfaces and further protection for the perishable contents. A patent has been applied for, covering the special construction of this carton.

The pie fits into the container and is held firmly in place since all parts of the pie are entirely supported by the walls of the carton. There are no empty corners which permit the pie to slide about and become crushed. Contents may be seen through a window of transparent plastic sheeting in the top. The carton is of yellow and red with product and brand identification in red lettering across the top. The special flavors of pies, such as raspberry, vanilla, strawberry, are stamped on the box.

Credit: Designed by Richard E. Paige, Inc. Made by Chicago Carton Co.

DESIGN HISTORIES

"Eye-petized" Labels

Defiance evaporated milk formerly carried the same label design on the front of the can as on the back. Then the milk company realized there was a definite trend toward descriptive labeling for consumer uses and suggestions. Surveys had shown that consumers wanted information about the product and the ways in which it could be used.

Revision of the label was indicated in order to set the Defiance evaporated milk cans apart from those of competitors who still clung to the traditional repeat design and to create a label which would make a greater appeal to consumer wants and needs.

Recipes, therefore, replaced the conventional design on the back of the can and, to enhance the printed word, a photograph in color of a mouth-watering dish was added, making what is called an "eye-petized" recipe. Although this type of recipe has been used extensively in the food field, the milk industry had never adopted this sales device to any degree. Defiance considers its use of this type of label a distinct innovation.

The Defiance Milk Products Co. finds the informative label has real merchandising value because of its multiple consumer appeal. Before distributing the new label nationally, the company tried out the new label in a selected number of sales areas where it has been most successfully received.

Credit: Labels by U. S. Printing and Lithograph Co.

PROS AND CONS ON GRADE LABELING FROM READERS

Comments on the grade labeling discussion in November Modern Packaging showed such keen interest in this subject on the part of various businesses concerned with such activity, that we are presenting herewith excerpts from the many letters received.

From a canner with nation-wide distribution: "To me the whole thing is more or less a 'tempest in a teapot' and I believe that ultimate consumer satisfaction is going to have to rest on the bedrock of her confidence in the name on the package rather than any fancy descriptive terms or any arbitrary grade labeling that can be applied under present conditions. I believe that grade labeling is more to be condemned than descriptive labeling because it is subject to more abuses. Recent tests have shown that a large percentage of goods going out under grade labels does not comply with the grade specified, but I believe that this is likely to continue to be the case as the concerns most likely to resort to grade labeling are those with the least confidence in the ability of their quality to stand up in the consumer's eye without the artificial prop of some outside endorsement. I know that in Canada they have compulsory grade labeling, so called, and there is still just about as much variation between the various brands and packs under the same specified grade as there existed between these brands and packs before grade labeling went into effect, and as near as I can see Mrs. Consumer has been benefited little, if any, and an additional cost has been added to distribution."

From Wisconsin canner: "Our opinion is that grade labeling has a number of big hurdles to get over and especially in these trying times. The supply of canned vegetables and fruits in 1942, in a great number of instances, will be definitely limited. Buyers likewise will not be overly critical as to quality. In a great number of instances it is a great deal more important to be able to make purchases in terms of cases, rather than in terms of quality. Buyers will not have the opportunity of having a large range of various lots to choose from. In a great number of instances they will be definitely limited as to their source of supply.

"On the other hand, grade labeling will gain momentum and recognition due to the fact that the government, for example, in tomatoes, will contemplate buying for the various agencies a total up to 40 per cent of the entire pack, and in the case of peas it is contemplated they will purchase a total of 38 per cent, and in corn a total of 24 per cent. All these purchases will be subjected to government inspection and approval as to quality under specific government grades. These inspections will be at the source—at the cannery. Many a canning operator will have his first experience as to government grading. Perhaps, in some instances, for the first time working in the presence of a government grader, passing on appreciable blocks of one's own production. That in itself will be very educational. That in itself, also, will make more and more of us think in terms of government grades as they are calculated and established in terms of numerical figures, and in terms of the impersonal party who passes judgment on the grades."

From a canner's association executive: "Your method of handling the subject is, I believe, a constructive one because you have afforded opportunity for expression of differing views from which the reader can arrive at his own conclusion. Much of the discussion on labeling has been beclouded by presentation of views based on narrow or erroneous premises that disregard some of the interests involved."

From an Indiana canner: "I think the matter is certainly well presented from all angles. We may sometime come around to some form of federal grades, but the present ABC has a lot of bugs in it."

From a canner of nationally distributed baby foods: "Your November symposium on grade labeling I found not only interesting but informative, and I was particularly impressed by the reasonableness of the attitudes taken by the representatives of both points of view. If out of an approach willing to concede merits in the opinions of those on both sides of this important question, a final solution might be reached, I think both the manufacturer and consumer would be benefited. There is, however, I fear little likelihood of any such eventuality."

From Midwestern wholesaler: "After carefully weighing the advantages and disadvantages of this important subject, it seems almost impossible for an institution enjoying for many years the reputation of turning out fine quality foods under labels to subscribe to a program of grade labeling. Until a couple of years ago there is no question that the canning industry and food distributors were woefully lax in recognizing the importance of selling food products to consumers under labels of informative value. However, rapid progress has been made and should be made, we believe, along the lines of complete informative labeling. It is possible to inform consumers correctly of the quality of foods packed in the can without resorting to the broad definitions of A-B-C and D.

"In our opinion, grade labeling has a tendency to strengthen the competitive position of very large organizations in the food distributing business like the corporate chains. For example, a commodity like canned peas is purchased by a large chain organization in almost every state of the Union in which plants are engaged in the packing of peas. A couple of these states are recognized as excellent producing territories for fine quality peas and the fancy or extra standard grades produced and canned in these sections differ noticeably from those graded fancy and extra standard in other territories. . . . Yet, because all are graded extra standard or some other grade, by a large number of individuals, varying their personal opinions, labels would carry a particular letter covering the grade.

"On many occasions the writer has seen the results of grading peas in various canning plants in Wisconsin by practical men who are really experts as the result of many years of training and the variance in even these opinions sometimes startles one. Only recently we had occasion to purchase apple sauce a chain supermarket labeled 'Grade A.' In making a comparison with two of our own labels we discovered that not only did the chain's Grade A fall very much below our top label, but it did not compare with our second grade! *(Continued on page 100)*

Some of the grade labels—A, B and C—used by the Great Atlantic & Pacific Tea. Co. on its canned foods.

Do educators favor grade labeling?

*by George Burton Hotchkiss**

In November Modern Packaging, we presented various points of view on this vital question expressed by a canner, a wholesaler, a retailer and a consumer. The following article represents the opinion of a leading professor of marketing. In it he gives you a cross-section of opinion on this subject from other marketing authorities in the field of education.

Less than 10 per cent of the teachers of marketing expressed unqualified approval of mandatory grade labeling in reply to a recent questionnaire sent to institutions that form the Assn. of Collegiate Schools of Business. A slightly greater percentage expressed unqualified disapproval. The remainder approved or disapproved with various qualifications, limitations and objections.

Teachers of marketing naturally favor any method of labeling that promises to make the process of buying and selling goods more efficient and economical. They are almost unanimously agreed that advertising material furnished to consumers, whether on the package or elsewhere, should be genuinely informative or serviceable. Some of them believe that A, B, C labeling is a step in this direction. The data revealed by the questionnaire, however, indicates that a very considerable number doubt that grade labeling is either genuinely informative or economical.

Obviously no one person can claim to act as a spokesman for all these scientists with various shades of opinion. I can speak only for myself, although I know my views are shared by others who have devoted much time and thought to the subject. To me the evidence indicates that possible benefits to consumers are outweighed by disadvantages.

The chief merit of A, B, C grades is that they may serve as a safeguard against dishonesty by sellers—either manufacturers or middlemen. But they open the way to dishonesty on the part of those who will bear the responsibility of administering the grades. This may, at present, seem a remote danger, but the whole history of official quality grading shows that it is a real danger. Official grading has often been tried; its enforcement was seldom honest and competent.

The consumer is obliged to trust someone. She may trust the spoken word of the clerk, or the printed word of the owner of the brand as expressed on his label and in his advertising. If she finds the word unreliable she ceases to rely upon it. The majority of housewives are far from being the gullible innocents they are sometimes represented to be. When they continue buying a brand of canned goods, either

* Professor of Marketing, New York University.

a manufacturer's national brand or a private brand, it is generally because their own judgment of its value has confirmed the claims of the seller regarding it.

Certain brands, especially those which are well known either through advertising or by other means, enjoy a consumer preference which enables them to sell more readily or at higher prices than less famous brands which may be their equals in material qualities. However, the attempt to reduce the differential advantage of famous brands by putting all brands in three or four classes is of doubtful expediency.

Brands classed as Grade A are not necessarily equivalent in material qualities; still less equivalent in their capacity to satisfy consumer wants. Of what value is it to the housewife to know that a can of peas is Grade B, if that means a score of from 76 to 89 arrived at by any one of a number of combinations of the factors used in scoring? It may mean only one point under Grade A or one point above Grade C, as determined by some humanly fallible judge. Thus there may be far greater differences in the quality of products classed in the same grade than between the highest of that grade and the lowest of the grade above.

Value of grade B

Mr. Lansing P. Shield says, "The chains freely admit that the great majority of consumers are ignorant of the value of grade labeling—or even of its existence!"* But how can anyone explain to them the value of Grade B? A clerk may say that Grade A is the best they have, and meets the Government standard for Grade A; that Grade C is good food that is above the minimum required by the Food and Drug Administration. Grade B remains a shadow-land of uncertainties. The normal process of producing and grading goods would result in a considerable amount of Grade B.

The Great Atlantic & Pacific Tea Co. reported on April 30, 1940, that since the fall of 1934 it had used a total of 928,400,000 A-B-C grade labels on canned foods, divided approximately as follows: 347,250,000 Grade A, 10,300,000 Grade B, 570,820,000 Grade C.

In other words, Grade B accounts for scarcely more than 1 per cent of their sales. This vast disparity is not explained by the fact that Grade B is not packed in all canned fruits. Possibly a considerable part of what should be labeled B, according to the standards, appears as Grade A or Grade C. Some support for this conjecture is to be found in the report of the Better Business Bureau that when labeled cans from various stores in 14 different cities were submitted to the Agricultural Marketing Service for testing, 39 per cent of the cans labeled Grade A tested a lower grade, and 40 per cent of those labeled Grade C tested a higher grade.

If these grades were made mandatory and universally used, they would raise an extremely difficult problem of adjusting the demand for different grades to the available supplies of these grades. And since the pack of canned fruits and vegetables is dependent on the quality of the crops, which varies from year to year, the problem does not permit a single, simple solution. Almost certainly there would be times when the inspectors, whether in government or private employment, would be under pressure to relax the severity of their judgments. Past experience indicates that human beings do not have uniform resistance to such pressure.

Because of such factors, it has sometimes been proposed that the grade on a product should be accompanied by the name of the inspector responsible for certifying the grade. This seems reasonable if the responsibility is not to rest with the sponsor of the brand. But because it is impracticable, consumers will eventually find that the brand is a safer guide than any official seal or grade of quality. The trade mark owner who looks forward to a long existence keeps faith with his consumers. The exceptions merely prove the rule.

Actually, of course, a trade mark often represents elements of value to consumers which are not measurable by laboratory methods. This is true not only of manufacturer's trade marked merchandise which is nationally advertised, but of some private brands of wholesalers and large-scale retailers. Hence some large-scale retailers who have eagerly adopted A, B, C grading for canned fruits and vegetables might be reluctant to see the system applied to every item in their line. For if their trade mark has come to be regarded as a safe guide in buying, the presence of a grade letter confirming the consumer's judgment is superfluous; one contradicting her judgment would be confusing.

It may be argued that the consumer's judgment is likely to be wrong and that she needs to have it corrected by grade labels. These may tell her that she has been paying a higher price for her favorite brand than is asked for less-known brands of the same grade. They may even tell her that by official standards her favorite brand is not Grade A. Such negative information may be considered educational in that one function of education is to correct errors and remove misconceptions. However, it is far less valuable than positive information which helps her to become a wiser buyer. And if it results in the misconception that A, B, C grades are a dependable yardstick for measuring values for her purposes she is no wiser than before.

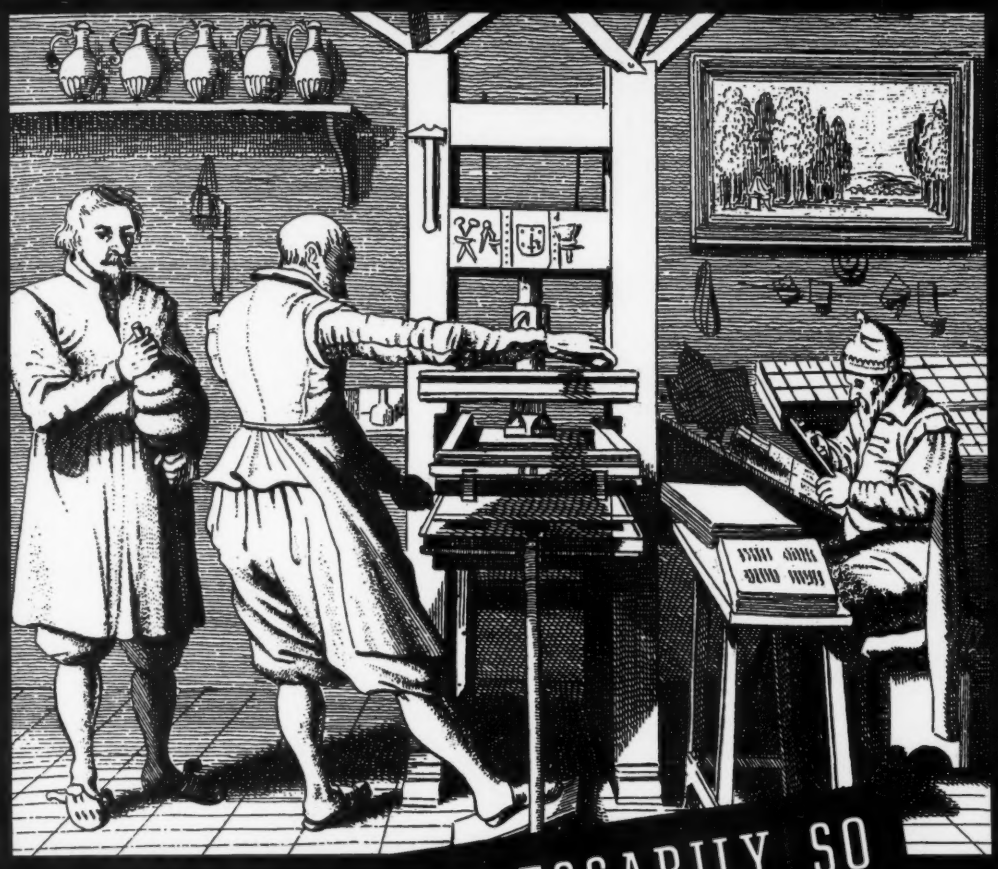
Grade letter inadequate

That the grade letter is an inadequate guide for buying canned goods is recognized by some of the private brands, for their labels contain also a considerable amount of description of the various quality characteristics of the contents of the cans. In so far as the descriptions are specific and accurate, they help the buyer to make a wiser choice among new or unfamiliar brands. Any repeat purchases she makes will presumably be largely on the basis of her experience.

Grade labeling is still on a voluntary basis. Consumers have the option of buying by trade marks alone, or of accepting the A, B, C letters as guides. So far only a minority (about 15 per cent, according to the Roper Report) have bought A, B, C graded canned goods, despite the amount of sales promotion and propaganda for grade labeling in the past six years. It seems to me, as it does to the majority of teachers of marketing, that informative labeling by descriptive terms has a better promise of proving useful to consumers. If the terms can be made sufficiently brief and accurate, they will be a fairer method of competition among brands than the deceptively simple method of A, B, C grade labels.

In any event, a further period of trial and experiment seems advisable before taking the serious step of making grade labels compulsory. To insure the accuracy of the grades would require a large administrative force, and quite probably continuous inspection by government officials at the canneries. Both producers and consumers will necessarily be subjected to supervision, restriction, and regimentation during the war. Except for purposes of national defense, however, there seems no justification for imposing upon them a system which they apparently do not want.

* Modern Packaging, Nov. 1941, p. 102.



IT AIN'T NECESSARILY SO

The description "hand-made" which usually indicates a high price does not necessarily mean any higher quality. Printing was done by hand when labor was cheap and time unessential. But the quality of the printing was no better than the quality of the printer.

Today, the development of machinery eliminates to a large degree the human factor. Great quantities of accurately made and beautifully printed packages are turned out with speed and economy in the Burt package plant. Most operations are performed automatically to achieve the quickness and low cost mass packagers demand. In many cases, to achieve top performance, we were forced to design and build our own equipment. In others, we have purchased stock models of machinery. But in all instances the advantages of automatic production of paper and transparent set-up boxes, of cartons and folding displays are passed on to our customers, who include the first names of packaging.

F. N. BURT COMPANY, INC.

500-540 SENECA STREET, BUFFALO, N. Y.

NEW YORK CITY · PHILADELPHIA · BOSTON
ST. LOUIS · ATLANTA, GEORGIA · CHICAGO
CLEVELAND · CINCINNATI · NEW ORLEANS
MEMPHIS · MINNEAPOLIS · KANSAS CITY
DANVILLE, CALIFORNIA (Near San Francisco)
A. G. Spilker, P. O. Box 126, Telephone: Danville 27

CANADIAN DIVISION: Dominion Paper Box Company, Ltd.
469-483 King Street, West, Toronto 2, Canada

Human Research helps

Armstrong's New Approach To Design Develops Another Packaging Success

WHEN Nelson, Baker & Company decided that their "Colonial Club" line of men's toiletries needed new and better packages, they dropped the problem squarely on the desks of Armstrong's Package Merchandising Department.

"Design a line of packages that will appeal to men," was the order.

So Armstrong's designers went to work. Through *Human Research* they learned what features men like and dislike in the packages they use. By applying their findings to this new design, they were able to create another successful package . . . one that has already exceeded sales expectations . . . one that has already proved a favorite seller to men.

* * *

Armstrong's Human Research can fit *your* packages to known facts about what your customers like—and dislike—about glass containers. And Human Research is only part of Armstrong's complete glass packaging service. You can have the advantages of 81 years of glassmaking experience, modern strategically located equipment, competent personnel, a complete range of closures to fit every packaging need. Write Armstrong Cork Company, Glass and Closure Division, 916 Arch St., Lancaster, Pennsylvania.

WHEREVER THEY'RE DISPLAYED *the new "Colonial Club" packages are catching and holding masculine eyes. They have a real look of quality about them, but not one of forbidding luxury. They are easily identified because they tie in harmoniously with the other "Colonial Club" products made by Nelson, Baker. And their attractive CEL-O-SEAL bands impress upon the user's mind the "Colonial Club" trade-mark, as well as guard against leakage and evaporation.*

create a package for men

MASCULINE APPEARANCE *was vital in the design of the new package. Human Research findings showed that men hate to buy fussy, feminine-looking products. So Armstrong designed this handsome bottle that men aren't ashamed to leave on their bureaus—a package as masculine as a briar.*

A SURE GRIP *even when hands are wet and slippery is afforded by the long, graceful neck of the new "Colonial Club" packages. Human Research found that this was a big selling point with men; they are tired of having frequent accidents with ordinary-type bottles. With this one they avoid them.*

AN EASY-TO-OPEN *bottle always wins masculine approval, Armstrong's Human Research found out. That's why these new "Colonial Club" bottles are fitted with good-looking white Artmold (molded plastic) caps. They're a cinch to remove and replace under any conditions—they don't require muscle.*

THEY FIT THE SHELVES *of almost all medicine cabinets—another selling feature of these new "Colonial Club" packages. A mighty important feature, too, according to Human Research findings. Men haven't the time or inclination to struggle with bottles that are hard to shelve or put away.*

ARMSTRONG CORK COMPANY

Glass Packaging Headquarters

Huyler expands with an eye to war economy

In Hempstead, L. I., is a new Huyler candy store. The front of the store is framed by a projecting surface, faced with terra cotta tiles. On each of the tiles, alternately, is a crown and a script letter H, the identifying Huyler trade mark insignia.

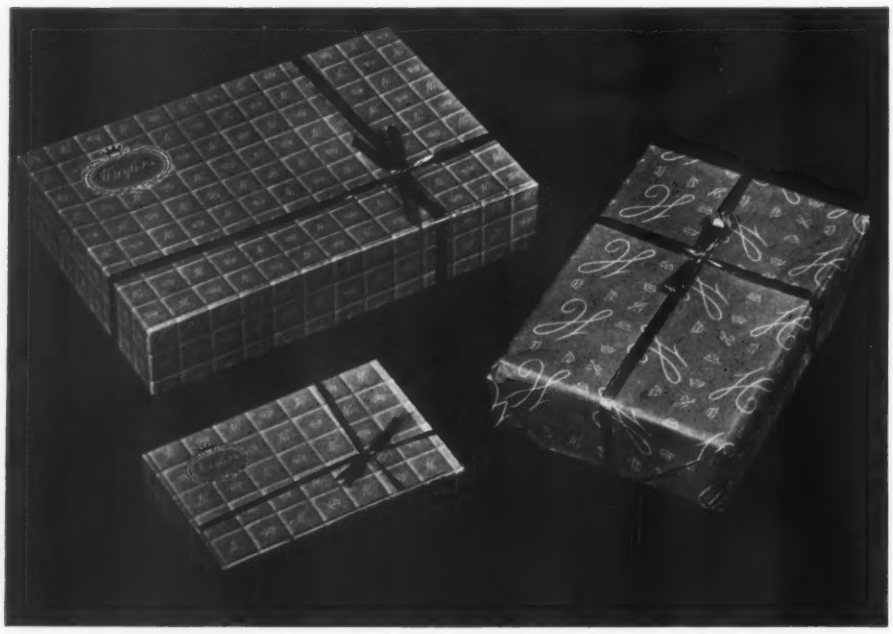
A reproduction of this crown and letter H is also the basic all-over design on all of the store's new candy boxes and paper used for wrappings.

This new store, complete with interior plans, packaging and display designed by Raymond Loewy, is the first of what may eventually be more than 200 similar Huyler units throughout the United States. It is a striking example of how trade identification may be carried out as an integral part of a company's promotional program in practically every phase of its operations—architecture of buildings, packaging, display and advertising.

This experiment, with accompanying plans for expansion, undertaken by Huyler's, represents the latest phase in the development of this long-established candy firm started in the seventies by one John C. Huyler who founded the business on a recipe for molasses candy that he perfected.

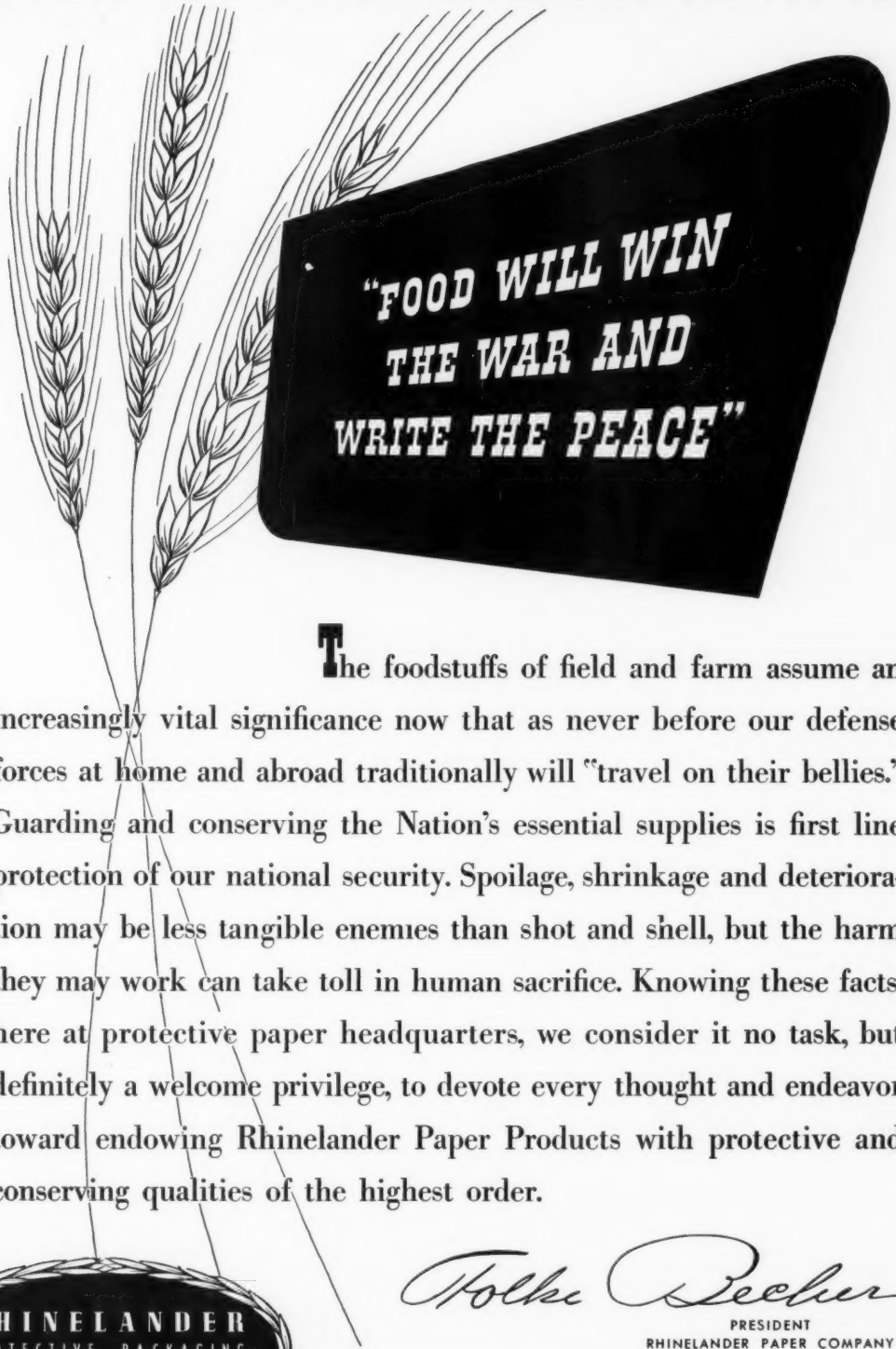
Huyler opened his first candy store in 1876, using the famous slogan "fresh every hour." Later his firm was one of the first to install soda fountains in candy stores and in the nineties began serving sandwiches and light luncheons, which was the foundation of Huyler's restaurant business. About a year ago the company started a modernization program in its regular stores all of which have restaurant facilities.

The new program started on Long Island to have candy shops exclusive of restaurant facilities is based on two prem-



Huyler's new candy boxes are designed with the same motif as the tiles framing the front of this firm's new store shown above — a project designed by Raymond Loewy. Wrapped box at right in photo shows modification of the design for wrapping paper used by Huyler store.

AN AMERICAN INSTITUTION WORKING WITH AND FOR AMERICA



The foodstuffs of field and farm assume an increasingly vital significance now that as never before our defense forces at home and abroad traditionally will "travel on their bellies." Guarding and conserving the Nation's essential supplies is first line protection of our national security. Spoilage, shrinkage and deterioration may be less tangible enemies than shot and shell, but the harm they may work can take toll in human sacrifice. Knowing these facts, here at protective paper headquarters, we consider it no task, but definitely a welcome privilege, to devote every thought and endeavor toward endowing Rhinelander Paper Products with protective and conserving qualities of the highest order.

Tolke Beecher

PRESIDENT
RHINELANDER PAPER COMPANY

RHINELANDER
PROTECTIVE PACKAGING
Papers

FROM THE BEST THAT'S MADE TO THE CHEAPEST THAT'S GOOD

Genuine Greaseproof
Laminated Frozen Food Wrappings
Confectionery Papers
Cereal Wrapping Papers

Laminated Greaseproof Papers
Lard and Shortening Liners
Bakery Product Wraps
Coffee Bag Papers

Cracker Box Liners
Greaseproof Innerwraps
Glassine Papers, Plain, Colored and Embossed

Wax Laminated Glassine
Opaque Label & Bag Glassine
Packing Industry Wrappings—and Specialties to order

RHINELANDER PAPER COMPANY • MILLS AT RHINELANDER, WISCONSIN, U. S. A.

Display units for the packages are interesting from a materials standpoint. Cases are of wood with mirror background. A giant edition of the new candy boxes serves as a combination display and selling unit. A minimum of metal is used throughout the display equipment.

ises: (1) that candy sells better without the distractions of soda fountains and restaurant facilities on the same premises, and (2) that candy consumption increases in wartime (up 10 per cent for 1940 over 1939 and 15 per cent in the first nine months of 1941).

Inasmuch as this expansion program is planned in wartime in the face of probable shortages of all kinds of materials, the entire project has been undertaken with these possible shortages in mind.

The packages, for example, show what attractive and distinctive design and good trade identity can be achieved by the use of a minimum of packaging materials. The boxes are simple, rectangular set-up telescope boxes. The tight wrap on the printed cover is similar to the design of the tiles on the store front—all light blue with the insignia in white. The embossed trade mark and informative data are printed in gold with metallic ink. However, this gold could be eliminated if metallic inks became difficult to obtain, without changing the basic design of the packages. The bottom part of the boxes is tight-wrapped in plain blue paper and thus saves the printing expense on this part of the container.

The boxes are tied with cotton ribbon sprayed with gold ink to provide a metallic effect. This ink also could be eliminated if conditions so demanded. The wrapping paper in almost the same shade of blue as the boxes is printed in one color—blue with the crown and initial in white.

Not one piece of cellophane is used for the packages, although to date the government limitation order does not restrict cellophane for wrapping foods. However, the company took no chances in having to redesign the packages in case the use of transparent materials might be eliminated as non-essential for candy packaging. Aside from the infinitesimal amount of metal used for the metallic ink, no metal has been used for the packages. Because the boxes are all standard shape, they can be made in large quantities and require no specially designed machinery.

The packages, which come in $^1/_2$-, 1-, 2-, 3- and 5-lb. sizes, house a new line of miniature-sized chocolates to sell in the 80-cents-the-pound range. They also contain a line of large, rich candies usually called home-made, which sell around 65 cents the pound. Huyler's regular candies range in price from 65 cents to $2 a pound, but the company has found that chocolates selling at about 80 cents are most popular and have priced their new line in that range.

Inside the store the display units for the packages are interesting from a materials standpoint. The cases are of wood with mirror background. The color scheme is predominantly blue-gray, white and gold—the same colors as the packages—with contrasting accents on the walls.

A giant edition of the new candy boxes serves as a combination display and selling unit. This rests on a teal-blue mount which continues as a baseboard to support the eye-level counters of white. Opposite the counters are gold-bronze bird cages, spaced along the wall, which provide flexible backgrounds for displays.

The sales girls' costumes complete the idea of the Huyler family tie-up of package, store-front design and display. They are made of blue with touches of white and include the company trade insignia—the crown and letter H.

Credits: Boxes by Foster & Cross, Inc. Box wrap by Lutz & Sheinkman. Ribbon by Chicago Printed String Co. Printed wrapping paper by Quaker State Lithographing Co.

Without the Skin, You Wouldn't Buy It

Within that red-gold outer covering, Nature has packaged all the luscious goodness of the fruit. You know, too, that it's only a *temporary* packaging—that, left alone, Nature will destroy the bounty she has provided.

And as with the apple, so with many other foods. In their preservation, storage and transportation, Nature presents man with a "bottleneck," in the solving of which containers become the ammunition of industry.

Glass and metal containers are vital to the Nation's food supply, and without bottles, jars and cans, essential defense materials could not be economically gathered into needed stockpiles.

In the defense of America, each segment of business contributes to the national economy. Making both metal and Duraglas containers, we offer *complete* packaging service to the industries of the Nation.

OWENS-ILLINOIS

Packaging Service

GLASS CONTAINERS • METAL CONTAINERS • CLOSURES • SHIPPING CARTONS

Owens-Illinois Glass Company, Toledo • Owens-Illinois Can Company, Toledo
Libbey Glass Company, Toledo • Owens-Illinois Pacific Coast Company, San Francisco


McKesson's
WAX COMPOUND
FOR DANCE FLOORS
CONTENTS 1 POUND
BORIC ACID U.S.P. CRYSTALS
CONTENTS 1 POUND
FLAXSEED U.S.P. MEAL (LINSEED U.S.P.)
FOR POULTICES
CONTENTS 8 OUNCES
EPSOM SALT
MAGNESIUM SULFATE U.S.P.
LAXATIVE AND CATHARTIC
CONTENTS 1 POUND
PSYLLIUM SEED N.F.
(PLANTAGO SEED N.F.)
BLONDE
CONTENTS 1 POUND
SALTPETRE U.S.P.
SODIUM BICARBONATE U.S.P.
CONTENTS 8 OUNCES
COPPERAS TECHNICAL (FERROUS SULFATE)
LUMPS
FLOWERS OF SULFUR U.S.P.
SUBLIMED SULFUR U.S.P.
CONTENTS 4 OUNCES
FULLER'S EARTH
DUSTING POWDER
CONTENTS 8 OUNCES
BORAX (SODIUM BORATE) U.S.P.
CLEANER • WATER SOFTENER
CONTENTS 1 POUND
PACKAGED AND DISTRIBUTED BY MCKESSON & ROBBINS INCORPORATED NEW YORK, N.Y. BRIDGEPORT, CONN. U.S.A.
FLAXSEED U.S.P. WHOLE
CONTENTS 8 OUNCES
PLASTER OF PARIS
FOR SPLINTS, CASTINGS, AND AS A CEMENT
CONTENTS 1 POUND
PACKAGED AND DISTRIBUTED BY MCKESSON & ROBBINS INCORPORATED NEW YORK, N.Y. BRIDGEPORT, CONN. U.S.A.
BORIC ACID U.S.P. POWDER
CONTENTS 4 OUNCES
CREAM OF TARTAR U.S.P.
CONTENTS 4 OUNCES
COMPOUND POWDER OF SENNA U.S.P.
LAXATIVE AND CATHARTIC
CONTENTS 1 OUNCE
FLAXSEED U.S.P. WHOLE
CONTENTS 2 OUNCES
FULLER'S EARTH
DUSTING POWDER
CONTENTS 2 OUNCES
TURMERIC POWDERED
FOR SEASONING FOODS
CONTENTS 1 OUNCE
FLAXSEED U.S.P. MEAL
FOR POULTICES
CONTENTS 2 OUNCES
MUSTARD POWDERED
For Condiment and Poultice
CONTENTS 2 OUNCES
ROCHELLE SALT U.S.P.
SALINE CATHARTIC
CONTENTS 2 OUNCES
HENNA LEAVES POWDERED (EGYPTIAN)
FOR TINTING THE HAIR AUBURN OR TITIAN
CONTENTS 4 OUNCES
CREAM OF TARTAR U.S.P.
CONTENTS 2 OUNCES
COMPOUND POWDER OF SENNA U.S.P.
LAXATIVE AND CATHARTIC
CONTENTS 2 OUNCES

Sixty-six green bottles

"Give me some bicarbonate of soda," said the man with the hangover to the chap behind the drug counter.

"I'd like some powdered henna," said the next customer—the girl with the pseudo Titian locks.

"Some pysillium seed, please," said the dear little old lady with a troublesome digestive track.

All day long, year in—year out, requests for these staples of the drug store shelves are steady business. Yet how many people who go to a drug store really ask for these staples by specifying a particular manufacturer's brand. How often do you, yourself, specify brand when you dash out for a package of boric acid to bathe your tired eyes or for bicarb'?

To the manufacturer of such products—and the list is long—borax, flaxseed, plaster of Paris, saltpetre, epsom salts, tumeric, fuller's earth and more—the problem of brand appeal is a prime concern. Furthermore, each manufacturer must offer his products in such a way that druggists will stock them and push them. If his company is a well-established one, the manufacturer knows that customers know it by name, but he also knows that the average customer also knows other drug firms whose names represent a good standard of quality. How, then, is each manufacturer to create a preference?

These beautiful new McKesson and Robbins glass containers are the most up-to-the-minute answer to such problems. Take a good look at them. You'll never forget them, because they are just about the most distinctive packages of their kind you will find on the market. According to the company's own statement, they are also the first complete line of dry drug products in glass.

The chief consideration in their selection, when the company decided to redesign its line of dry chemicals, was eye appeal. They wanted packages for their more than 60 items (including all products and sizes) that would make druggists and consumers take notice of the McKesson and Robbins line. In addition, they wanted packages that would offer the best protective features.

Therefore, before adopting the new packages, McKesson and Robbins tested six different types of packages over a period of three weeks. Each contained four U. S. P. dry pharmaceuticals subject to deteriorations. All of these containers were subjected to humidity conditions at ordinary and accelerated temperatures and were immersed in water for a short period. The levels of humidity selected were low, average and high, or 30 per cent, 65 per cent and 90 per cent, respectively. The temperatures were 20 deg. C. (68 deg. F.) and 37 deg. C. (98 deg. F.). The 20 deg. C. represented average room temperature. A thermostatically controlled incubator was employed for the higher temperature. Tests were also conducted under excessively high temperature conditions (90 deg. C.).

The findings by independent laboratories, employed to test six different types of containers, indicated that the glass jar with screw cap and suitable liner, properly set, met every protective requirement for the products.

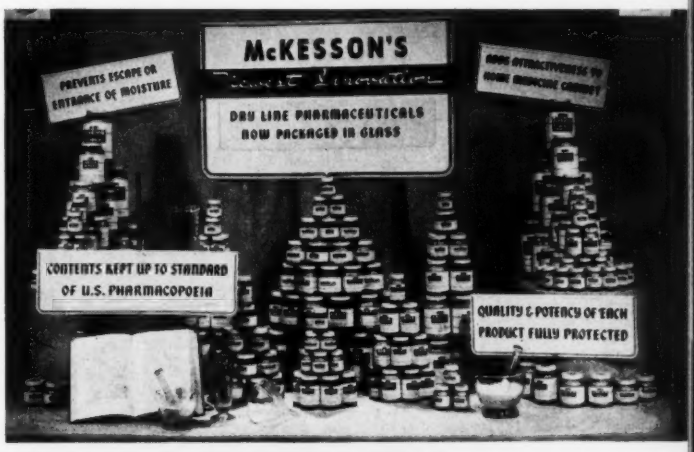
The new containers, as may be seen from the color photograph, are all green stippled glass. They have very light buff colored metal closures with the McKesson and Robbins trade mark prominently displayed on the top, printed in deep maroon. The labels are also buff, the same tone as the metal screw caps. The same shade of maroon is used for printing on the labels as that used on the cap. Names of the products are shown in easy-to-read type in a reverse panel on the label.

The new line has been offered to dealers at approximately the same price as the old line. Reports received by the company from all outlets where the new packages are being sold reveal immediate and enthusiastic reception. Druggists are giving them preferred positions and as one said the other day, "Yes, we are certainly selling a lot more of them since they came out in the new jars."

Consumers like the new packages and select them in preference to others, particularly for the re-use value of these attractive containers, which are also designed for their appearance on the bath room medicine shelf. The packages have one more advantage in that standardized glass containers of this type may be comparatively easy to obtain under present conditions from a materials standpoint, but that was not the consideration at the time they were selected.

Credits: Glass jars and closures by Owens-Illinois Glass Co. Labels by The Herlin Press.

1



2

1. The new containers are effective for mass display in windows or on counters. Druggists give them preference because of their attractive color. 2. Salesmen were provided with this sample kit of leatherette, convenient for carrying, and containing a demonstration assortment.

(*Page 59*)

Testing properties of paper

The American Society for Testing Materials recently completed the following two important tentative methods of test for various properties of paper. The two methods are reprinted here in their entirety.

Conditioning Paperboard, Fibreboard and Paperboard Containers for Testing*

Scope

1. This method covers the procedure for conditioning specimens of container grades of paperboard, corrugated board and solid fibreboard, and containers made from such grades of paperboard, prior to testing.

Standard condition

2. Standard condition shall be that obtained in circulating atmosphere maintained at a relative humidity of 50 ± 2 per cent and a temperature of 73 ± 2 deg. F., except that the variation in temperature alone shall not be of such magnitude as to cause a variation in relative humidity greater than that specified.

Apparatus

3. The apparatus shall consist of the following:

(a) *Drying Oven.*—A drying oven, electric or other suitable type, of sufficient size and capacity to permit the preconditioning of the specimens to a moisture content below that which will be attained by the later conditioning.

(b) *Conditioning Room.*—A conditioning room or chamber which can be accurately controlled to a relative humidity of 50 ± 2 per cent and a temperature of 73 ± 2 deg. F.

Procedure

4. (a) Each specimen to be tested shall first have its moisture content initially reduced, if necessary, so that when it is exposed to the standard condition, its moisture content will approach its equilibrium condition by taking on moisture from the atmosphere. This shall be accomplished by exposing the specimen in a hot room or preconditioning room, the temperature and humidity of which are such as to cause the specimen to give off moisture. The duration of exposure in the preconditioning room shall be such that the moisture content of the specimen when removed from the room is below the moisture content which will result after exposure in the constant humidity room. (b) Each specimen shall then be so exposed that the circulating air at the standard condition will have free access to all its exterior surfaces. (c) The minimum time of exposure of the specimen in the standard conditioning atmosphere before it is tested shall be 5 hrs. for specimens of paperboard, corrugated board, fibreboard and unsealed boxes; the minimum time of exposure for sealed fibreboard boxes shall be 16 hrs.

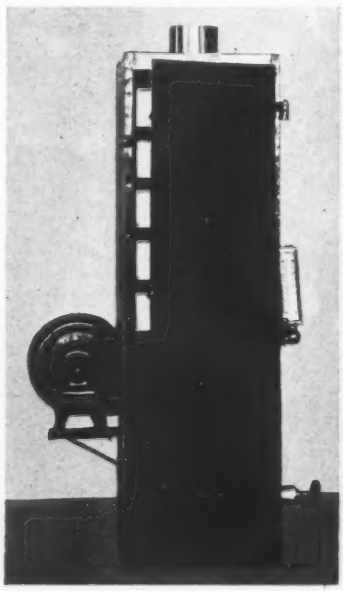
Report

5. The moisture content of the specimen at the time of test shall be reported, so equilibrium condition can be judged.

* Under the standardization procedure of the Society, this method is under the jurisdiction of the A.S.T.M. Committee D-6 on Paper and Paper Products.

1. Gas heated oven used to determine moisture content of raw pulp. 2. Paper testing laboratory showing beater and the paper making apparatus. Photos United States Testing Co.

1



2

CHECK THE CAN TOO ✓

The Atlantic Refining Company made a careful check before deciding on the proper containers for their quality motor oils . . . and the organization to produce them.

Naturally, Crown Can is proud of the fact that the job of protecting Atlantic Lubricants was entrusted to this up-and-coming organization.

Bring your can problems to Crown . . . where they will be given the alert, attentive consideration of men vitally concerned in seeing your interests fully protected. Crown's cooperative spirit has been a primary factor in Crown's rapid rise to third place in the industry in less than four years.

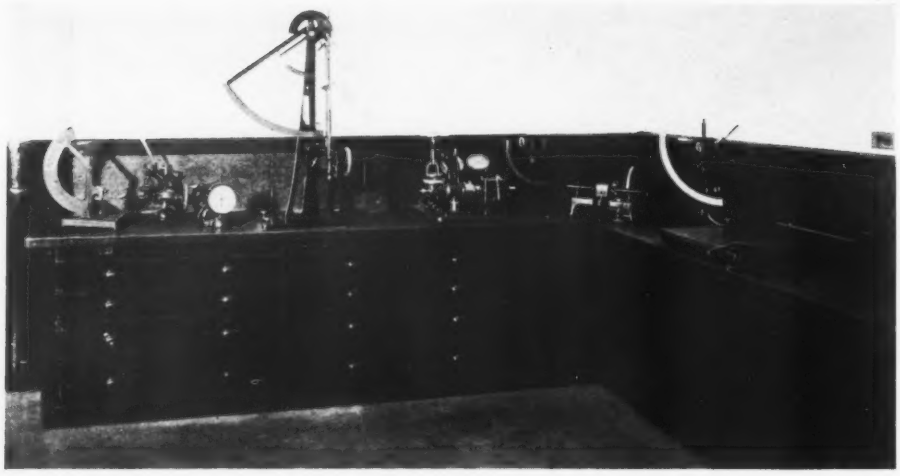
CROWN CAN COMPANY, PHILADELPHIA, PA.

Division of Crown Cork and Seal Company

BALTIMORE ST. LOUIS HOUSTON MADISON ORLANDO
FORT WAYNE NEBRASKA CITY

CROWN CAN

INDEPENDENT AND HELPFUL



3. Section of conditioning room, maintained at constant temperature and humidity control. The apparatus includes thickness tester, tear tester Mullen tester, tensile strength machine, folding n.achine, and the ream weight tester. Photo United States Testing Co.

Compression Testing of Corrugated and Solid Fibre Boxes

Scope

1. This method covers the procedure for compression testing of corrugated and solid fibre boxes.

Apparatus

2. The apparatus shall consist of the following:

(a) *Sealing Equipment.*—Suitable facilities, including sealing boards and proper adhesive, for sealing both the top and bottom flaps of box specimens without leaving bracing material within the boxes that will give false results as to compressive strength.

(b) *Testing Machine.*—A compression testing machine of accepted design and capacity.

(c) *Trimming Knife.*—A sharp knife for cutting paperboard.

(d) *Psychrometer.*—A sling psychrometer to check humidity in the testing room.

(e) *Conditioning Apparatus.*—Control apparatus for conditioning test material on the absorption cycle, and suitable working quarters.

Test specimens

3. At least twelve specimens of the boxes in a lot shall be selected for test. Of the twelve specimens, ten shall be used for the compression test, five in each of the two directions top to bottom, and end to end of the specimen, and two for other combined board tests as may be required. Side-to-side tests of specimens shall not be made unless expressly agreed upon by the manufacturer and the purchaser.

Preparation of specimens

4. (a) The box specimen shall be sealed so as to avoid distortions which may affect its load-bearing ability. The method of preparing the test specimen as described in paragraphs (b) to (e) will accomplish this, but any method that will produce the same result may be used.

(b) The box specimens shall be sealed as follows: The box blank shall be squared up and each flap in turn bent backward 180 deg. on the score line and then forward 270 deg. to the normal closure position. Starting with either the top or bottom of the box, the short or inner flaps shall be closed first and each of them shall be given a uniform application of adhesive, such as silicate of soda. Then the long or outer flaps shall be closed on to the glued surface of the inner flaps. The adhesive shall be kept at least $^1/_2$ in. away from the score lines. The closure shall be placed flat on a solid level surface and a plywood board slightly smaller than the closure area placed on the inner surface of the closure, and weight applied to the board by one of the following means:

(1) Placing scale test weights on the board, or

(2) Inserting a screw hook through a slot in the work bench and through the midpoint of the junction of the outer flaps into the board, from which screw hook a heavy weight is suspended, or

(3) Making a hole in the center of the board through which a carriage bolt is passed down through the junction of the flaps and through a slot in the bench to receive a large wing nut which tightens the board, thus transmitting pressure to the glued surfaces.

(c) When the first closure glue has set sufficiently to allow handling, the boards and weight shall be removed.

(d) The other face of the box specimen shall be sealed as follows: A board similar in size to that used for the first closure shall be suspended in the opening of the box. A carriage bolt or screw hook shall be placed so that it extends upward through the center of the board. The short or inner flaps shall be flexed first outward and then inward as described in paragraph (b), and then brought to rest on the board, and given a coating of glue. Then the longer or outer flaps shall be flexed inward following an outward flex and brought to rest on the glued surfaces. Pressure shall then be applied to this glued joint by one of the following means:

(1) Inverting the box with the screw hook extending over a slot in the work bench and suspending from the hook sufficient weight to insure firm contact, or

(2) Inverting the box with bolt extending through a slot and tightening a wing nut on the bolt to exert pressure, or applying pressure by

(3) Slipping a second board down over the bolt, and tightening the nut to draw the two boards together, thus holding the glued joint while it sets.

(e) When the glue has set, the clamping device shall be released, thus obtaining a completely sealed box without contents, except for the inner sealing board, which falls loose from the flaps and will not offer any support to the box because it is of such a size as to prevent wedging. (*Continued on page 98*)

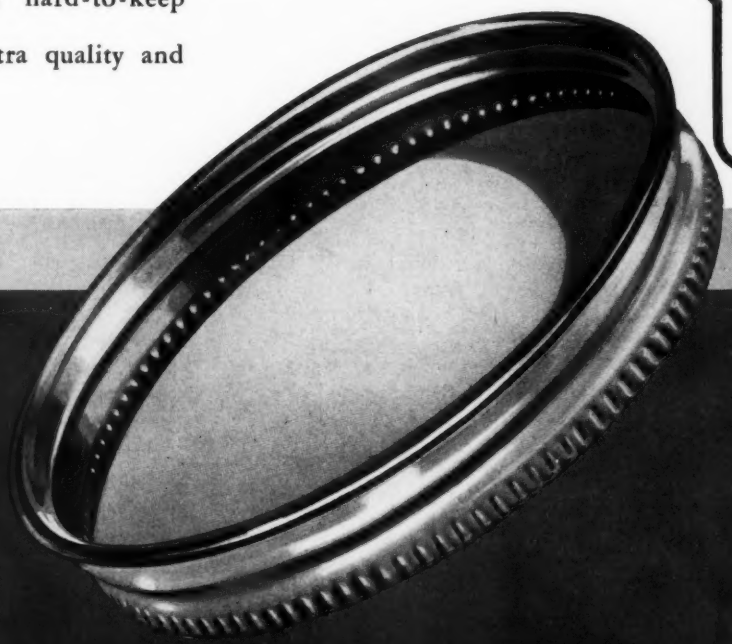
LITTLE THINGS THAT MADE A BIG DIFFERENCE

BY making the wings of their plane adjustable, the Wright Brothers solved one of the major problems in heavier-than-air flight.

A notable contribution to the science of food sealing has been made by CCS with the Crown Plastic Liner. No other waxed liner can compare with it in the quality of the wax, the sturdiness of the coating, or in sealing efficiency. It is unexcelled for pickles, olives, mustard and similar hard-to-keep products. And for all this extra quality and dependability you pay no more! Samples and prices will be sent you promptly, without obligation. Write today.

CROWN CORK AND SEAL COMPANY
BALTIMORE, MARYLAND
World's Largest Makers of Closures for Glass Containers

CROWN'S PART IN DEFENSE
Building tripod mounts for anti-aircraft guns.



PLASTIC LINER...

One of the 7 Closure Improvements CROWN brought you **1st.**

Prevention of food spoilage*

The urgent necessity in Great Britain for the preservation of food supplies has brought about increased interest in suitable wrapping materials for food. The following extracts from a paper by Dr. William Clayton, D.Sc., F.I.C., head of the Technical Development Department, Metal Box Co., Ltd., contains information on experience in England dealing with the preparation of wrappings. Food packers in the United States will find the account of how English packers are wrapping their foods for adequate protection under wartime conditions of value in the light of our own emergency.

Much attention has lately been devoted to wrappings for protecting foods from various types of spoilage. Even the more familiar paper wraps and containers demand special measures to avoid uncontrolled development of micro-organisms in the pulp and paper mills. Thus, chlorination of water, removal of slime accumulations and the control of fungus contamination by introducing copper sulphate at focal points—these and other measures ensure a finished paper free from infective dangers. The sterilisation of wrapping materials demands 44 hours holding at 88° C., the stacks of materials undergoing treatment not being larger than 15 cu. ft. with ample air space around each stack. It should be noted that the effect of exposure to sunlight is important for paper, since physical degradation often accompanies chemical changes in the paper.

Butter boxes may lead to mould troubles owing to the timber. It has been observed that Swedish pine timber impregnated with wax is less susceptible than white pine to mould growth, but it may give "timber taint" to the surface of the butter. Promising results obtained in New Zealand for controlling mould growth were gained by immersing the boxes for 10 minutes in a 0.1 per cent solution of Shirlan (sodium salicylanilide).

Cheese requires special care in packaging and since 1934 the valve-vented can has been employed for curing and aging cheese. To avoid darkening where the cheese contacts the can, lacquered tinplate is needed. Parchment, metal foils and transparent cellulose are used for individual wrapping and the cans are preferably key-opened to permit clean removal of the contents Wax-coated rubber sheets for packaging cheese prevent formation of rind and of surface mould growth, yet permit escape of CO_2 during curing. Metal foils, especially tin and aluminum, have found extensive application. Not only are they readily adjustable to irregular surfaces, but they are moisture-, insect- and light-proof. They are usually backed with a protective coating of wax, vinyl resin, glassine or paper and they are obtainable for self-sealing by application of heat.

Overcoming store-burn

A special problem in wrapping concerns store-burn, amber-coloured shrivelled patches on the surface of frozen meats, which arise from the evaporation of ice crystals. Tiny air pockets are thereby left behind and they scatter incident light, so making the tissue appear lighter in colour. These patches persist to some extent even after thawing, proving that the drying of the muscle fibres is an irreversible process. Excessive drying resulting in store-burn can be related to a low relative humidity of the air in the cold store and, in the case of wrapped products, to absorption of water by the wrapping material, e.g., wood or paper.

Moran avoided store-burn in frozen lambs' kidneys even after 6 months' storage at 10° C., by using a paper prepared by layering aluminum foil with a parchment paper on one side and a waxed paper on the other. Similarly, store-burn in frozen poultry can be avoided by packing in boxes lined with two layers of aluminum foil/grease-proof paper, whereas grease-proof paper alone fails.

The Dewey & Almy Chemical Corp. of America have developed the "Cryo-Vac" process for wrapping foodstuffs that are to be refrigerated. A very thin latex rubber balloon is drawn tightly around the package which is then vacuumised. Finishing is effected by immersion in warm water to remove wrinkles and leave a fully protected and smooth package. Complete prevention of loss of moisture is obtained and thus freezer burns are absent from the frozen food.

Moisture in foods

Probably the most important aspect of packaging materials relates to the passage of moisture through them. Carson, of the U. S. National Bureau of Standards, has examined 10 factors which influence the loss or gain of moisture in packaged foods. One must agree with him that, "It is frequently found puzzling that a membrane or sheet of material that is practically impermeable to dry air may allow comparatively easy passage of the water vapour in air, which is seldom more than 2 or 3 per cent of the mixture of gases of which the air is composed. This favouritism toward the passage of moisture vapour or atmospheric moisture shown by some food wrappings and other membranes that seem impermeable to gases is not only puzzling but may be annoying, embarrassing and expensive."

While it is obvious that water vapor may penetrate membranes via their defects, it is not so obvious why penetration can occur if the membrane is entirely sound. One explanation is that owing to a difference of moisture content in the air on the opposite side of a membrane-wrapped food, the membrane material absorbs moisture and tends to equalise its distribution by diffusion or flow through the material.

The variables listed by Carson are: (1) time, so that a steady rate of transpiration may be reached; (2) area; (3) leakage; (4) thickness, although overall permeability may be much more important than unit-thickness; (5) vapour-pressure difference, which as a first approximation determines the rate of passage of moisture; (6) relative humidity, a very high value increasing the rate of transpiration more than is expected from the difference of vapour-pressure alone; (7) temperature, increasing the driving pressure of transpiration and, occasionally, damaging the membranous material; (8) total pressure, which may affect the membrane by bulging; (9) diffusion in still air, as circulation is necessary for accurate test purposes in order that uniformity of humidity obtains in testing; (10) state (*Continued on page 102*)

*Reprinted from *The Chemical Age*, London, England.

LET Heekin's colorful metal lithography put sales punch in every one of your products. Heekin Lithographed Metal Cans . . . stand up under abuse of light and weather. Please your prospective customers with a pleasing package . . . you've got to please 'em to sell 'em. That's what puts money in the cash drawer of the retailer. Heekin's superior metal lithography is inexpensive . . . that's why so many hundreds of manufacturers in all lines use Heekin Lithographed Cans. THE HEEKIN CAN CO., CINCINNATI, OHIO.

U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 10 cents each.

LIPSTICK SPREADER. G. S. Ridner, Sr., and G. S. Ridner, Jr. (to C. E. Ridner, Rahway, N. J.). U. S. 2,264,482, Dec. 2. A holder adapted to contain a lipstick which projects through one end and includes a lipstick spreader extending out the opposite end of the holder.

CONTAINER FOR TOOTHPASTE. S. Wulfson, Milan, Italy. U. S. 2,267,625. Dec. 23. A holder for a cake of toothpaste with an opening for placing the cake in a position for its application to the bristles of the toothbrush.

PAPER CUP. W. S. Sykes (to Milwaukee Lace Paper Co., Milwaukee, Wis.). U. S. 2,266,828, Dec. 23. A paper cup of cylindrical paper body provided with circumferential reinforcement at top and bottom and an inward-turned flange. The bottom has a bead and a closure member seating on the flange.

CONTAINER CONSTRUCTION. F. Neuschaefer, Rye, N. Y. U. S. 2,265,653, Dec. 9. A glass container for fingernail polish including a wall partitioning of transparent body, and an opening in the base in which the fingernail may be placed in vertical position in order to demonstrate the color of the fingernail lacquer as it will appear, applied to the fingernail.

LOCK HANDLE FOR PAPER BAGS. F. Tatar (to S. J. Goldfarb, New York, N. Y.). U. S. 2,266,938, Dec. 23. A paper bag with front and rear walls equipped with a locking device for fastening a handle on to same and for effecting a secure closure for the container.

METHOD AND APPARATUS FOR CONVEYING ARTICLES. W. C. Palmer and H. H. Mohl (to Micro-Wasco, Inc., Bettendorf, Iowa). U. S. 2,264,768, Dec. 2. A feed conveyor equipped with a clutch for stopping and starting and for receiving articles in succession across a station at which point the articles are engaged and moved forward. Means are provided for the predetermined portion of angle of rotation of article which prevents the conveyor from arresting the actuation of the clutch.

PACKAGING MACHINE. F. E. Bickford, Rye, N. Y. U. S. 2,265,024, Dec. 2. A device for forming packages of thin, flexible material with means for passing a continuous sheet into tra-like structure into a position for applying adhesive and means for moving the structure in contact with continuous sheet of feeder material after application of adhesive.

CONFIGURABLE PLATEN FOR LABEL APPLYING MACHINES. T. H. Miller (to Kaumagraph Co., New York). U. S. 2,268,262, Dec. 30. A self-adjusting platen for applying a flexible sheet material across a seam of a base material.

PACKAGING APPARATUS. A. G. Rose (to Rose Bros., Ltd., Gainsborough, England). U. S. 2,268,423, Dec. 30. A device for folding the inside flaps of a travelling open end container and means for feeding same with its end flaps in open position.

APPARATUS AND METHOD FOR MAKING WRAPPERS WITH OPENING TAPES. M. J. Milmoe and E. D. Sramek (to F. B. Redington Co., Chicago, Ill.). U. S. 2,265,609, Dec. 9. A device for making a wrapper with an opening tape attached with a portion of the tape extending beyond an edge of the wrapper to provide an opening tab.

PROTECTIVE CORNER PIECE. L. J. Epps (to Dearborn Stamping Co., Dearborn, Mich.). U. S. 2,266,181, Dec. 16. A packaging clip composed of a strip of metal bent to form a pair of diverging plates and formed with ribs running parallel and longitudinally extending away from the bent edge.

PACKAGING AND CRATING STRUCTURE. H. C. Way, Wheeling, W. Va. U. S. 2,266,483, Dec. 16. An article package comprising a pair of end frame elements of U-shape in cross section embracing the ends of the articles and a pair of side frame elements embracing the sides of the articles. The elements include a web and flange extending inward with a rib pressed in from one of the flanges and one rib outward from the other flanges.

PACKAGE OF INTERFOLDED PAPER SHEETS AND DISPENSING WRAPPER THEREFORE. Ray Ross, New York, N. Y. U. S. 2,269,039, Jan. 6. A dispensing box for folded paper sheets, adapted for use as pocket container. Wall of box is detachable. When pulled outward will engage and expose a margin of folded paper sheet. Folded articles are interfolded so that removal of initial sheet exposes margin of second. Successive folded articles are effected accordingly.

TEXTILE TAPE PACKAGE. L. C. Osborne (to Hoffman Lion Mills Co., Inc., Fall River, Mass.). U. S. 2,264,451, Dec. 2. A textile package consisting of a closed box-like container with front, side and back walls and top closure flaps for including elastic strip material of a width equal to the thickness of the container.

BAG FORMING APPARATUS. L. B. Eaton (to Pneumatic Scale Corp., Quincy, Mass.). U. S. 2,265,636, Dec. 9. An apparatus for producing tea bag made up of a die plate having an opening and equipped with a plunger of rectangular section and possessing longitudinal grooves in its narrower sides.

METHOD AND APPARATUS FOR WRAPPING ANNULAR OBJECTS. E. Eger (to U. S. Rubber Co., New York, N. Y.). U. S. 2,266,592, Dec. 16. An apparatus for wrapping tires with means for holding bead portions of the tire in axial relationship. Means are provided for applying a sheet of wrapping material circumferentially to rim perimeter of tire.

BAG HOLDING MECHANISM. C. F. Allison (to American Bag Closing Machine Co., Chicago, Ill.). U. S. 2,266,946, Dec. 23. A device made up of a unit for folding and for moving the folded closure and transversely bending down the neck portion of a bag. Subsequently compressing this portion in combination with a second folding unit having a groove to receive the folded portion of the bag.

METHOD AND MEANS FOR PACKING MATERIALS. S. H. Berch, Los Angeles, Calif. U. S. 2,267,320, Dec. 23. A method of packaging products including the use of a container formed of flexible laminated sheet material, the inner lamina being of a rubber composition which renders the sheet of material impervious to oil, moisture and grease, and formed into a bag-like receptacle.

ENVELOPE FEEDING MECHANISM. C. L. Post, Chicago, Ill. U. S. 2,267,574, Dec. 23. A feeding device consisting of a magazine for holding a stack of window envelopes with mechanism for laterally feeding the bottom envelope of the stack from the magazine and then raising the next envelope out of engagement with the window position of the bottom envelope which is laterally drawn from the machine by the feeding mechanism.

APPARATUS FOR FILLING AND SEALING CONTAINERS. C. W. Vogt. Norwalk, Conn. U. S. 2,267,880, Dec. 30, A filling apparatus for containers having an inlet opening which is formed of a pair of flexible parallel walls which are then subsequently sealed together.

BLOSSOM OUT!

-it does something altogether pleasing-

COLOR AND DESIGN are combined in natural simplicity -- a form of art which needs no cultivated appreciation. Every one likes flowers, so we suggest that you make your container "say it with flowers".

Nashua Floral Papers have eye-appeal, and for many products, have a peculiarly effective appropriateness. They are not expensive, require little embellishment and are easy to handle in the box makers' plant.

Nashua's new Floral Papers sampled from top to bottom:
No. 60 - 61 - 62 - 63 - 64

NASHUA GUMMED AND COATED PAPER COMPANY
DEPT. M-2 - NASHUA, NEW HAMPSHIRE

CREATORS · CHEMISTS · CRAFTSMEN
NASHUA
MAKES PAPER MAKE MONEY FOR YOU

Look for the Triangle NASHUA Sign of a Nashua Value

This insert is printed on Nashua's No. 9171 Platinum.

• To Florida farmers, whose pine trees are the South's newest crop, Container Corporation this year presents 1,000,000 seedling pines. • This is only one of many ways we assure the supply and quality of Container Corporation products —under precise laboratory control from raw materials to finished packages.

CONTAINER CORPORATION OF AMERICA

CHICAGO, ILLINOIS, AND 22 OTHER STRATEGICALLY LOCATED CITIES

CORRUGATED AND SOLID-FIBRE SHIPPING CASES • FOLDING CARTONS • BOXBOARDS

IF

you have a cold

you burn a finger

your cook is out of . . .

someone has a stomach ache

the baby needs vitamins

the girl wants cosmetics

the kids call for drinks

you need fresh smokes

JUST BUY A CARTON OF . . .

For it's true that most good things come in packages. Large and small, plain and colorful they are the way of obtaining what you want —wherever you need it. There isn't a better method of assuring a uniform quality standard, or a cleaner, handier way of bringing products to the consumer. It's a unit of protection during shipping, storage and in use.

There's a lot of economy too in present day folding cartons of Ridgelo clay coated—costs less to print on, as a matter of fact. It's the attractive kind of boxboard that a good package design deserves—clean, bright and smooth.

With important materials diverted to war effort, more products need the efficiency of Ridgelo clay-coated boxes.

Make your package practical!

Ridgelo CLAY COATED BOXBOARD

DON'T BURN WASTEPAPER SAVE IT! SELL IT! DEFENSE NEEDS IT!

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Son, Inc., Philadelphia

MODERN DISPLAY

How variety stores evaluate sales helps

"Know your outlets" is a merchandising maxim which applies with triple force to the manufacturer who would market his products through the 5¢-and-10¢ stores. Like it or not, the pattern is established, was established years ago by the founder of the Woolworth chain. Chain and independent stores today follow that pattern, assuming the attitude—with a modernized version of the conservatism which that founder fought—"Why should we change? The method is successful."

And it is. The volume of business is enormous. The variety of products is amazing. The profit shown, with few exceptions, is gratifying. Why should they change? The mountain won't come to Mahomet, so Mahomet had better make tracks toward the mountain. In some lines of merchandising, notably the automotive and the radio, the manufacturer has been able to fashion his retail outlets in his own mold. Not so the manufacturer who has been successful with the novelty stores, for there the entrenched pattern controls merchandising methods, packaging and the use of store display materials. Adaptation to all three is essential. This article deals with the third point—store display materials.

What is the pattern with respect to displays? Are there established regulations and routine procedures which are set by the outlets? Are there any deviations from these regulations and, if so, under what circumstances? What types of material are most acceptable and successful? In an effort to answer these questions, the Institute of Package Research approached some of the leading chain headquarters via the questionnaire method and supplemented that with investigations of display creative methods practiced by lithog-

1. Variety stores don't welcome large displays, but this Wrigley piece broke the rule. It helps sell other products. 2. Fitting either window or store interior, this piece exhibits actual product in use.

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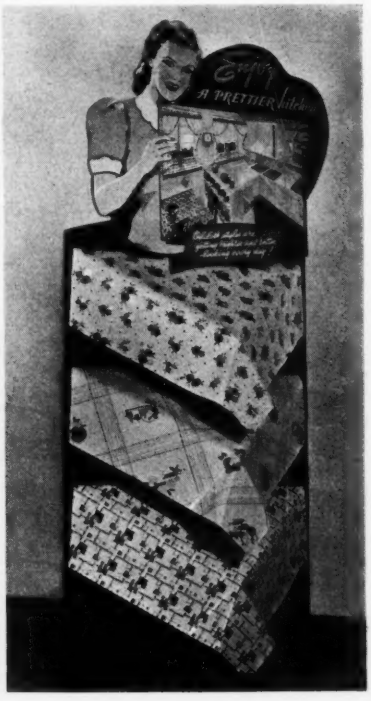

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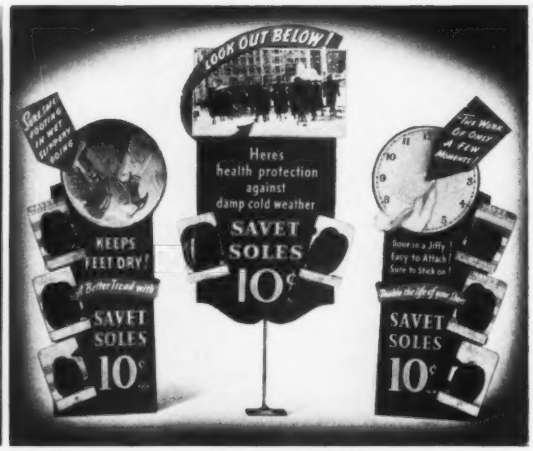

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raphers who serve that field and with examples from display users of the materials they have found successful.

One important chain headquarters executive said very bluntly, "I have not seen fit to reply to the various questions asked." Another expressed a brief negative to the first question, "Does your organization encourage its merchandise suppliers to provide point-of-sale helps to sell the goods?" Others were not so reticent. Their replies, instead of being reduced to tabular form, are presented as a summary because of the significant comments which were included. For instance, while the majority answered the first question with a simple affirmative, here are some exceedingly important pointers:

"Yes, but we want an opportunity to turn down signs that are not suitable for our stores or if the manufacturer is using too much of the copy space selfishly."

"Yes, particularly for toiletries and notion goods, yet not on an extensive scale."

"Yes, but it must comply with our specifications and be okayed by sales department."

"Yes. We are willing to cooperate in helping to train our sales clerks and developing new material."

The last quotation seems rather unusual in view of the fact that ordinarily the variety store sales clerk is not encouraged to push merchandise. She merely takes the money, wraps the article, but makes no attempt to sell or even suggest related products.

Size restrictions vary. As to window displays pieces, some stores report no specified sizes are required; others make the non-committal comment that it would depend on the item and the actual sizes mentioned as maximum run from 22 in. high by 12 in. wide to 44 in. high by 28 in. wide. The minimum acceptable sizes vary from 12 in. by 8 in. to 22 in. by 11 in. Recommended by experts in the creative field is an average height of 18 in. and a minimum of not less than 12 in.

For counter or island display use, the variety store executives show a similar variety of preferences. In at least one instance, counter pieces are restricted to counter widths; in other cases they are not encouraged at all. The largest size mentioned is 14 in. by 11 in., while one only permits a maximum size of 11 in. by 7 in. and still another is accurate enough to specify a maximum of $13^1/_2$ in. by $10^1/_2$ in. The minimum size in one case goes as low as $5^1/_2$ in. by $3^1/_2$ in.

In the case of hangers, some of the syndicates do not permit them at all; others do not encourage them; among the few mentioning actual size, 14 in. was given as the top permitted size.

In respect to construction, easel back, self-supporting types have the preference. In the case of counter or island cards, one definitely specified, "Printed on both sides—six ply."

The question, "What are your regulations as to display of product with counter or window piece?" brought some answers which should prove to be definite guides in preparing displays for variety store use:

"All merchandise is given counter space according to selling merit."

"Most important—display must embody merchandise; can be empty packages."

"Items advertised may be featured providing such items tie-in with window plans."

"We encourage a display of the merchandise, using the window piece to act as a background."

"We have no definite regulations, but our store managers display merchandise with the window signs furnished by the manufacturers."

"A representative display (of the product) to back up the window and counter material."

Are there any color preferences which should be regarded? Important factor seems to be the "seasonable" element, though apparently in most instances there are no definite regulations. The red-and-gold combination was specifically mentioned as effective in the case of one syndicate, and another expressed a preference for "pastel shades, red and white combination." One chain insists that counter cards must be "black-and-white only with possibly a little color, for example, red fingernails or a trade mark with a colored imprint." In this respect, however, most of the organizations allow full latitude to the supplier.

Can the manufacturer look to these outlets for a printed or mimeographed set of instructions covering point-of-sale material? Apparently not, for not a single reply indicated having such a thing, but, says one, "Each case is individually handled," while another says, "We generally accept or reject signs as they are submitted to us." What the batting average is—that is, how many displays offered are accepted—is a matter of conjecture; but it is safe to conclude that the wise merchandiser will be guided by someone who has made a thorough study of variety store display practice in developing and creating materials for use in these outlets.

And when one puts himself in the hands of such a counselor,

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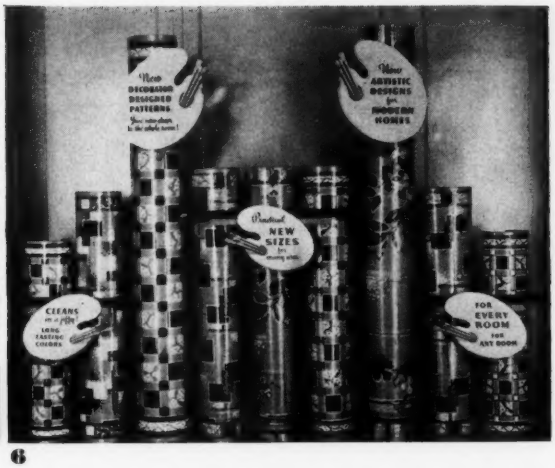

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3. If a display sells goods, it meets the acid test in the variety store. This display was called for several years in succession because it met that test. 4. The possibility of exhibiting related products afforded by this display makes it a welcome piece in the variety store. 5. Displays have the power to launch and develop a market for new or previously little known products. This piece, it is claimed, helped do that job for Ray-O-Vac batteries against entrenched competition. 6. Floor coverings, difficult to handle and difficult to dramatize, are effectively displayed by this ingenious method. 7. Dear to the variety store display manager's heart is a display which shows actual products; these pieces exhibit Dr. Scholl's line with illustrations of the product in use. Prices are prominently shown.

he finds that some rules are made to be broken, but that a powerful "reason why" must be supplied before they are broken. For instance, rarely does a "convenience" item like chewing gum rate a full window, particularly in view of the profit margin and the "three-for-a-dime" selling price common in some territories. But when Wrigley—a newcomer to the field of variety store window display—developed their "Get All Three" material, along with it they presented the idea of inducing store traffic through the pulling power of such a window. The display is made up of a number of pieces which together make a "window filler," but each of the individual pieces fits into any sort of a general candy display the store may wish to install. The actual packs of chewing gum are so small that they are quite insignificant, but package identity is afforded by the use of jumbo packages.

In this instance, the "Get All Three" theme was played up in the instruction sheet for store managers which was furnished by the lithographer; for more often than not the lithographer or creative agency must implement the display clear through to the firing line. This particular instruction sheet informs the store manager that in this display he gets:

"A window that you'll be able to trim in a jiffy.

"A business getter for your candy department.

"A creator of profitable store traffic."

Such a sheet demonstrates the fact that the advertiser must motivate the retail manager through an appeal to his own interests and that the lithographer must assume the task of developing and dramatizing those appeals for his clients, as well as providing clear and simple instructions for setting up what are sometimes complicated constructions.

An attractive oilcloth display, usable either in window or as a floor piece, manifests an understanding of the principle, "People buy uses—not things," because it plays up the style appeal and simulates the appearance of the product in use. It's considerate of the retailer, too, knowing that the dealer or store manager is reluctant to cut up actual merchandise because of the expense. Standard Coated Products Corp. furnished a display that actually reproduces the effect of table covers with the corners falling into drapes. Comparatively inexpensive triangular shaped swatches were used, three to a display, and advance selection was handled in such a manner that the patterns selected were the best sellers in each locality, and thus afforded all the advantages of a personalized display. It had the further advantage of being easily changed, too.

"Why should we change?" asks the variety store, if something has proved successful. Year after year, the stores have asked again and again for a Sterling Seed display that has proved its ability to sell goods—there's no reason on earth for changing it. Not only does it sell seeds, but it forms an ideal accompanying medium and background for the display of garden tools, hose and related products.

Quoted earlier in this article was the significant phrase that sometimes a manufacturer uses "too much of the copy space selfishly." That is unwise in merchandising through any type of outlet. In the variety stores, it results in complete and unequivocal condemnation—flat rejection! The

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manufacturer of "Savet Soles" realistically faced the fact that his display would be more reasonably assured of installation if he planned it to become part of a general shoe findings window, so the copy on his large center card is designed to help the sale of such companion items as soles and heels, shoe polishes, waxes, etc.

In the battle of brands, there is a constant struggle between the entrenched, well-advertised, nationally known brand, and the newcomer who must fight for his place in the store. In less than a year, Ray-O-Vac batteries, newly invading a field that for a long time had been very closely held, have found a place in a large number of the variety chains. They attribute a share of this success to a matter-of-fact recognition of the limitations placed on display and its uses by the syndicates and to making the most of the opportunities permitted them.

Hard floor coverings are bulky and hard to handle. Anyone who is familiar with them knows that the display man in a variety store would have a legitimate excuse for passing them up as far as his windows were concerned. But Congoleum-Nairn had a story to tell that depended on actual display of the product and actual display of the product is something very close to the heart of the variety store merchandiser. The beauty of the patterns, the economical prices and the impressiveness of size were points of irresistible appeal. By means of an ingenious cardboard "collar," it became an easy job for the display man to set up attractive rolls of floor covering. Sales messages were conveyed by display cards with strings attached. Because now, for the first time, the display man was given a method of showing these hard-to-handle items, the merchandise got into the windows and, after doing duty there, often found a place as a ledge decoration in the interior of the store.

It is evident from the statements of variety store executives that their outlets reluctantly accept display material and then accept it only when it is a means of speeding up the movement of goods. As a method of beautifying the store, displays are considered of small consequence. Signs, store managers rightly reason, take up valuable space that merchandise should occupy. Experience has proved to them that merchandise and not beautiful sign work sells the goods. Dr. Scholl met the situation with display cards that do a better job of displaying the actual goods by serving as plaques with product attached, while the illustrations told a quick, pointed story of product use.

If America doesn't "keep her shoes shined all the while," it's not Griffin's fault. Catchy radio advertising is supplemented in the variety stores, both chain and independent, with displays which fully meet the desire of this type of outlet for merchandise and more merchandise. Economy, variety and seasonable character are all present. In one of the accompanying illustrations clever little animal cartoons are in evidence and in the other is a timely and interesting military treatment, using the familiar Griffin doll character.

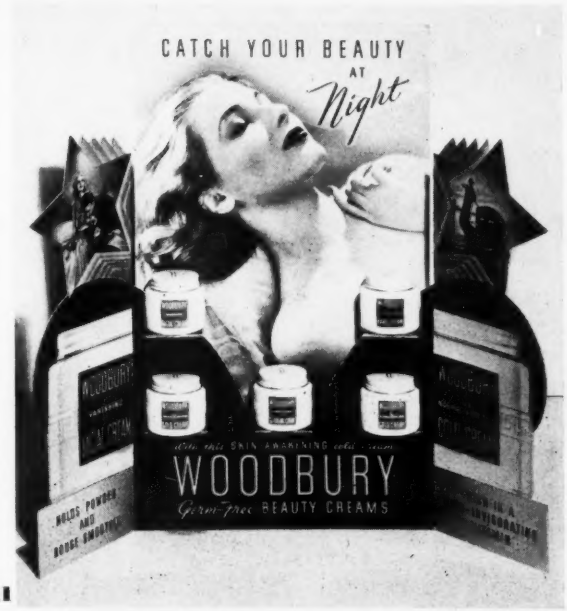
8. Making a definite seasonal appeal, this display—largely dominated by actual product—gets a full window for Griffin's Allwite Shoe Polish. 9. The copy on these pieces definitely ties in with radio advertising themes, but can also be relied on to do its own job independently of other media. 10. There's a sure-fire romantic note in this display, bound to catch the feminine eye! Jergens Lotion has won a permanent place in variety stores.

The Jergens-Woodbury organization, whose products have a healthy sale through variety stores, stresses the importance of a definite tie-up of display material with the themes of its national radio and magazine advertising. Occasionally the company's line is accorded full windows, in which case, full-sized, easel cards are utilized perhaps 40 or more inches in height. For the most part, however, the sizes of the material are adapted to the preferences of the outlets, which seldom exceed 18 in. in height.

This toiletry manufacturer, like Colgate-Palmolive-Peet, utilizes the services of an organization which functions exclusively in a highly specialized manner in the variety store field. A number of non-competing manufacturers utilize this service. Only one product of a kind can be represented in the collection of display material, that is, one shampoo, one dentifrice, one face powder, etc. Some of these manufacturers create and develop their own art work, but the lithography is handled by the special service, as is the distribution. All of the displays are submitted to the chain organizations for approval; all fold down to the same size. Deliveries are made twice each year, usually by Western Union messengers and the delivery must be signed for by the manager. Details of delivery are handled by the special service. Thus the outlets are provided with a planned program of display material which meets their requirements in every particular.

As a general thing, the variety store does not insist on top-quality lithography for display material, though there are no definite restrictions or regulations on that point. It seems to be rather a matter of appropriateness to the product. The toiletry preparations just referred to, for instance, would require "fair-to-good" or even excellent lithographic representation, but products like Clopay's line of window shades, with their emphasis on a strict economy appeal, would create an entirely erroneous impression if they were promoted by means of expensive lithography. They supply store managers with units for display at several spots—window streamers to catch the customer's eye as she enters the store, pennants as she walks through the store and counter cards as she approaches the place where she makes the actual purchase. Definitely and consciously not representative of lithographic beauty, their material nevertheless is appropriate to the product—and it sells the goods.

Credits: Photos Nos. 1 to 7, inclusive, Salzer & Co., Nos. 5, 8 and 9, Einson-Freeman Co., Inc. Nos. 11 and 13, Syndicate Stores Service. No. 12, H. Wm. Pollack Poster Print Co.



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11. Persistent use of the beauty appeal and rigid observance of variety store preferences have helped Woodbury's toiletries to develop an enviable market in these outlets. 12. Clopay's hangers, with matter-of-fact economy appeal, attract attention to a utilitarian product. 13. Three Colgate products are consistently supported by display pieces calculated to be acceptable to variety stores.

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Display Gallery

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1 "Be prepared" is the implication of this window display for Alka-Seltzer. Essentials for combating the hazards of bleak and blustery winter days are shown in a colorful illustration of warm wraps, overshoes and Alka-Seltzer. Simple side cards give trade name, price, where product may be obtained and the ills it will help to relieve. Product is shown in the package and in the glass, ready for use. Large cartons make the bases for the side cards. Made by The Forbes Lithograph Co.

2 The artist has painted a sophisticated woman in unusual costume who poses on a curved and tufted chair for this poster advertising Marlboro cigarettes. Her expensive appearance bears out the company's slogan, "America's Luxury Cigarette." An opened package of ivory tipped Marlboros is shown in the lower right corner and copy directly beneath the package carries information about the different types of tips available. This window display card represents the use of a technique now widely practiced for appeal to a class market. Drawing, technique, lettering and copy are combined in a poster which appeals to a special audience. Made by U. S. Printing & Lithograph Co.

3 Bulky objects that are often sold in sets present special display problems. This display used by General Tire & Rubber Co. is an excellent example of how this may be done. Although shelved for the time being, due to the rubber situation, it's a good one to keep in mind for better times and as a suggestion for other hard-to-display merchandise. The display, of corrugated board, gives the prospective buyer a clear conception of a complete set of tires and tubes and conveys the idea that they were shipped in the boxes. Individual holders are printed in black on an orange background, while the tubes are packed inside the tires in a contrasting-colored liner. Complete ensemble is made up of six separate pieces which are shipped flat to the dealer. Display by The Ohio Boxboard Co.

4 Another number in G-E Mazda "bulbsnatcher" series is this pathetic youngster with a bulbless electric lamp in his hands. In a balloon the young man tearfully states his trouble, "Some old bulbsnatcher swiped my bulb again." The theme of keeping on hand a sufficient supply of electric bulbs is illustrated by G-E in countless displays depicting human-interest situations, some of which are of the broadly humorous cartoon type and others realistic, such as this display of a boy crying. A large picture of a bulb has a sales message and the company's popular prices are listed on the poster. Made by Kindred, MacLean & Co., Inc.

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5 The bottle-statuette that tops the wire display is a device for advertising John Wieland's beer at the point of sale. The hollow bust of the figure is fitted over the beer bottle. The bust forms the head and shoulders of the manikin and the beer bottle forms the body. The figure of the grinning bartender is made of plaster of Paris. A large beer bottle cap, printed with the name of the brewing company, sits jauntily over the manikin's right eye. Actual bottles of beer are placed on the wire rack and each bottle is held by wires to the display to prevent pilferage. The statuette, which effectively humanizes the advertiser's package, may be used as window, counter or backbar display. Figure designed by Frederick Seid.

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6 The Meeker Co., Inc., combines the packaging of its leather goods in an interesting display ensemble, which the company calls its "miniature showcase." A saving of materials was effected by using standard gift packages in harmonious combination with the display unit. The gift packages are silk-lined boxes with removable lids of rigid transparent plastic sheeting. Boxes are set lengthwise against a board on which is the company's slogan. A simple side card has the company's trade mark embossed at the top with brand name printed beneath the medallion. Gift boxes and display unit by Dennison Mfg. Co.

7

7 Anacin's facsimile of a doctor's hand, writing a prescription, is made of compression molded wood plastic, a material unaffected by wartime priorities. Principal ingredients of wood plastic are wood, flour, cornstarch and resin. The display shows the various sizes of packages of Anacin products so the customer simply points to what he wants. Stand has a white background with large red letters embossed on it. The red color is printed by the silk screen method. Black letters beneath the red ones are made by rubber pad printing device. Cartons and tins of Anacin are glued into accommodating recesses in the stand. Hand was colored in natural flesh tones by stencil spray and the pen was molded separately and then glued between the fingers. Prescription blank is a die-cut printed form and was applied with adhesive when unit was assembled. The back of the display affords an excellent opportunity to furnish valuable information to salespeople. Display is planned for use near cash register and the clerk who is in doubt about that last dollar bill handed him can quickly consult the information sheet on counterfeit money which is affixed to the back. Made by Tri-Plastic Advertising Co., Inc.

OF THE FAMOUS ALL-AMERICA

AND PACKAGING SHOW ISSUE

OF MODERN PACKAGING

THIS year the famous All-America issue of Modern Packaging will be published in *April*—instead of March, as formerly.

The photographs, full descriptions and credits of the winning packages in the 11th All-America Package Competition will appear in the *April* issue of Modern Packaging. It will be the *April* issue that will be the year's most beautiful.

Each year this All-America issue focuses the spotlight of national attention on the achievements of the packaging industries. This year, more than ever before, the interest aroused by the All-America Package Competition has out-stripped all previous public acclaim. This year, more than ever before, the All-America offers an important message of prestige and sales to the suppliers of packages, parts, materials and equipment to the winning firms.

For, this year the winners will be judged on their marketing merits: they will be selected as the leading grocery package, the leading cosmetic package, the leading bakery package, etc. As such, they will reap more public interest than ever. As such, they offer every supplier a real opportunity to tell his part in the creation of America's leading packages.

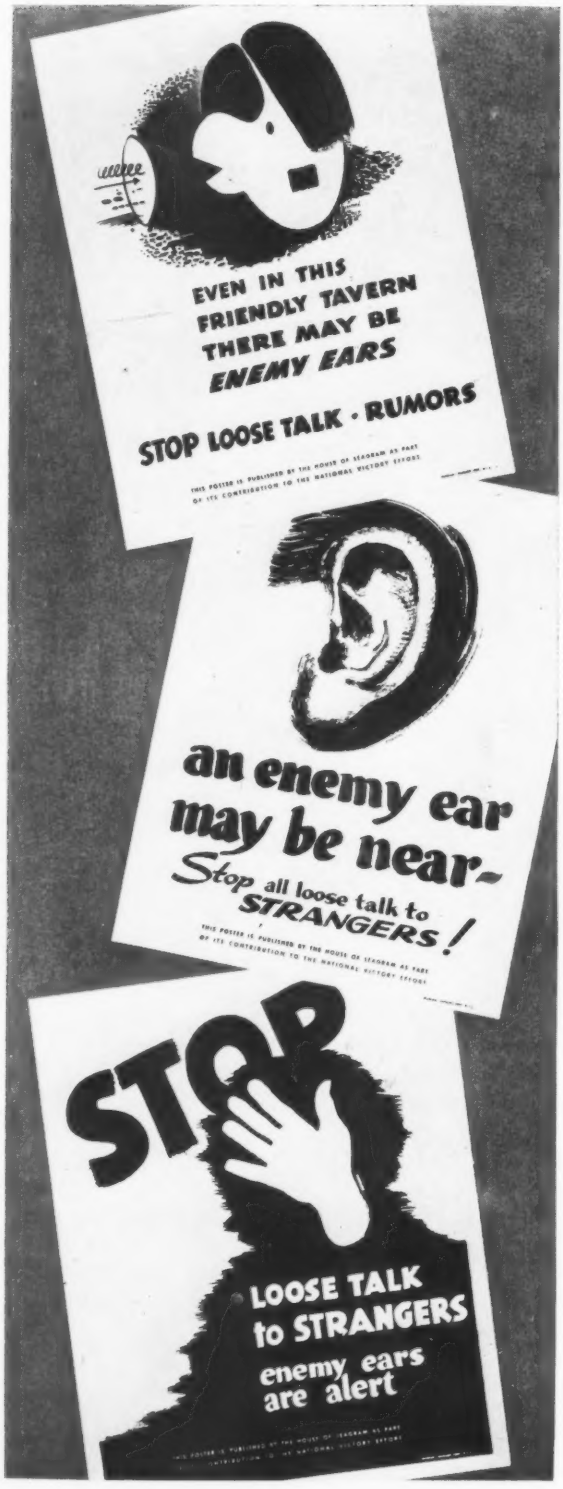
RESERVE SPACE NOW!

Space rates on request

MODERN PACKAGING *magazine*

122 East 42nd Street, NEW YORK CITY

Enemy ears may be near



Has this happened to you? As you rode in a train, sat at a table in a restaurant, you overheard a conversation—people talking in the seat behind you or at the next table.

You couldn't help hearing about "that new explosive plant they are building in a town somewhere in New England," "the ship that arrived in port this morning," "that latest shipment of .30 calibre machine guns sent to fort something-or-other last week."

It might be innocent conversation about defense activity falling upon your innocent ears, yet it might not be so innocent if heard by ears not so innocent as yours. Such talk is likely to be heard in bars and taverns, where the atmosphere is informal and where a round or two of quick ones limbers up the tongue.

Realizing that American bars and taverns are friendly places where it is natural to make acquaintances and to chat with strangers, Seagram-Distillers Corp. recently instituted a poster campaign cautioning people against loose talk that might give information to the enemy.

Field men of the company started distributing 40,000 such posters in all parts of the country during December. Immediately the company was deluged with requests for more of the posters, not only from bars and taverns, but from air raid, draft board, arsenal groups as well as industrial plants. On the basis of these requests, about 75,000 copies of a second series of the posters have been printed for further distribution.

The posters carry no advertising. They are purely and simply an institutional campaign. "The very friendliness of the American people and their friendly taverns may inadvertently lead to passing information to the enemy," said Seagram's announcement concerning the campaign. "Reminders like these posters, we hope, will do their part to prevent this possibility."

The first series of posters were 22 by 28 inches. The second series not only includes this size, but a smaller size 11 by 14 inches. Some of the posters are lithographed in four colors, others in three colors. The only reference to the sponsor is two lines of small type at the bottom of each, which states, "This poster is published by the House of Seagram as part of its contribution to the national victory effort."

The initial group distributed by the company comprised four posters, three of which are illustrated on this page. The second group, just issued, includes four more. Copy is kept at a minimum with the message in large bold letters. For example, the word, "Don't," on one of the large-size posters is a foot and a half high.

First of the second series carries an illustration of Hitler, Mussolini and Hirohito, each listening through a megaphone. The headline is, "Look Who's Listening." Another headline reads, "Loose Lips Can Sink Ships," illustrated with a picture of a sinking ship. The third shows a parrot with the headline, "Free Speech Does Not Mean Careless Talk." The fourth carries a cartoon of a rat nibbling at a bag of war secrets. The headline is, "Starve Them with Silence."

Another innovation for the second series is varnished paper which provides a brighter effect.

Conserve *and* SELL *at* POINT OF PURCHASE

• CONSERVE DISPLAY MATERIALS • BUT DON'T CURTAIL THAT VITAL PRINTED SALESMANSHIP AT THE BUYING SPOT

JUST TURN IT AROUND

EVEREADY
FLASHLIGHT BATTERIES
FOR LONGER NIGHTS AHEAD

2 DISPLAYS IN 1

CUTS STOCK REQUIREMENTS IN HALF

Headquarters for **VACATION NEEDS**

SALES efforts must not be relaxed if we are to maintain a maximum flow of consumer goods, returns on which will go far to help pay the expenses of our national effort. Illustrating and describing products, their uses and their advantages, on display material at the point of purchase, is a vital part of today's selling effort.

YOU can continue YOUR point-of-purchase sales effort and at the same time cooperate fully in O P M's demand that sizable savings in use of paper and paperboard be accomplished. This EVEREADY display shows but one solution — we have others.

Write, wire or phone for a FORBES sales executive to call . . . it's an odds-on bet we can show you something which will help YOU.

FORBES LITHOGRAPH CO.

THE SHOP BY THE SEA

P. O. BOX 513 • BOSTON

NEW YORK CHICAGO CLEVELAND ROCHESTER

They made the SWITCH without a Hitch!

MACHINE VERSATILITY HELPS SOLVE THE WRAPPING MATERIAL PROBLEM

Because of the present-day shortages, many a manufacturer has been forced to switch to a different kind of wrapping material.

To some, the "switch-over" presented a *real* problem . . . But users of our machines were able to make the change almost in stride—*because our machines are adaptable to any wrapping material.*

This is just another example of the advisability of investing in the most versatile wrapping equipment—equipment that provides for *future* as well as present requirements.

One of our most versatile machines is the popular FA. This machine is easily and quickly adjustable for a wide range of sizes and adaptable to a great many styles of wrapping. The FA works equally well with any type of wrapping material. Permits various forms of hook-up to cartoning or filling machines. Operates at speeds of from 40 to 100 packages per minute, depending on the size and nature of the package.

Consult our Packaging Clinic
or write for Literature.

We're supplying our Armed Forces, too

We are supplying our nation's armament plants with batteries of cartridge-loading machines. These machines fill machine-gun cartridges with the exact amount of powder required, insert the projectile and daub the nose with paint.

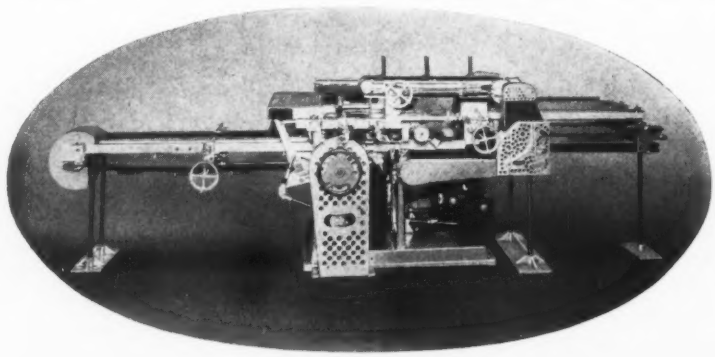
PACKAGE MACHINERY COMPANY . . Springfield, Massachusetts

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

Mexico, D.F.: Agencia Comercial Anahuac, Apartado 2303

Buenos Aires, Argentina: David H. Orton, Maipu 231

Peterborough, England: Baker Perkins, Ltd. Melbourne, Australia: Baker Perkins, Pty., Ltd.



PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Fifteen minutes from raw pineapple to canned fruit

"Dole's" Honolulu plant cans third of Hawaii's pineapple crop

The manuscript of this article, sent to Honolulu for final checking by the Hawaiian Pineapple Co., was returned after the bombing of Pearl Harbor. Word has reached us that the plant suffered no damage or loss of life. Shipments are something of a problem because steamship movements are uncertain under present war conditions, but apparently nothing has happened to prevent the company continuing the packaging operations described here.

The part played by mechanical conveyors in the speeding up of production flow and maximum utilization of warehouse capacity, has been a special source of interest to packagers and others who, in the pre-war days, visited the large Hawaiian Pineapple Co. plant in Honolulu.

Spread over an area of 42 acres, with some 33 acres of floor space for canning operations and warehouses, it is the world's largest fruit cannery. It is here, in one single plant, that more than one-third of Hawaii's entire pineapple pack is processed and packed. Since the Hawaiian Islands produce 80 per cent of the world's crop of pineapples, this is a production record that has seldom, if ever, been duplicated by any other single packing organization.

Back of the "Dole" label is a story of production efficiency and speed that has amazed packagers who have had the opportunity to see operations at close range. With 46 canning lines, 11 labeling lines, which operate with incredible efficiency, this plant maintained daily production as high as 4,791,594 cans during 1941, exceeding any previous record.

In recent months, the company has effected a number of improvements, such as the addition of mechanical carriers for handling and stacking of case goods and expansion of warehouse area. With completion of a new warehouse unit, the plant now has the facilities to store a maximum of 6,000,000 cases of canned pineapple. What with disruption of ocean

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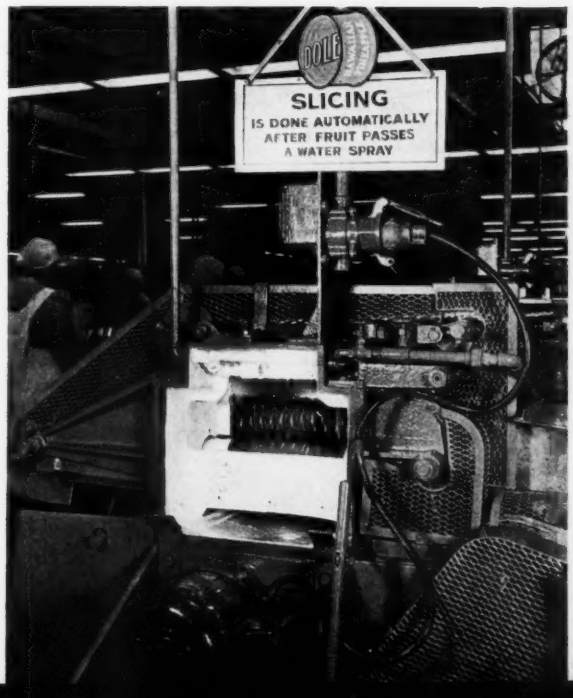
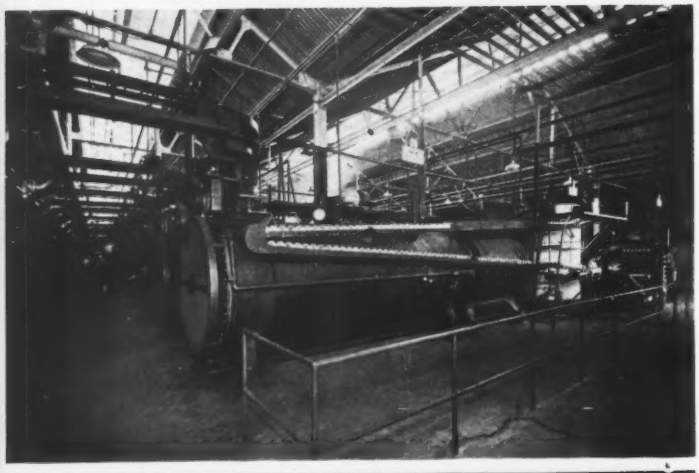
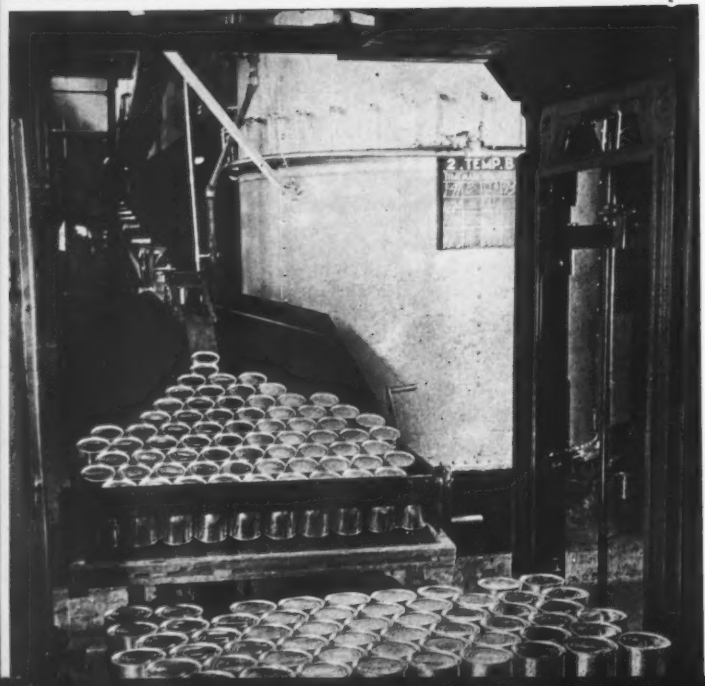


1. Pineapples are fed automatically into 46 "ginaca" machines for peeling and coring, emerging as fruit cylinders sized to fit cans. 2. Trimming tables with stainless steel rests for fruit. 3. As fruit enters this slicer, it is automatically sprayed with water before being sliced.





transportation and other current difficulties due to the war, the augmented warehouse capacity is proving a godsend.

The great speed with which the pineapple crop is transported from large scale plantations to the centrally operated plant and there quickly converted into canned products, is something that interests every visitor to the big plant. Brought by barge, boat or freight car from outlying plantations in the islands, the pineapples are transported by truck over a specially constructed over-pass which directly connects with ramps leading into the warehouse. Built recently, the over-pass has considerably shortened the distance from unloading station to production line.

There is a lapse of from 18 to 22 months from the time the pineapple plant is rooted and the fruit is harvested; but it takes only 15 minutes to core, slice, pack, process it. Such production speed is vital to maintenance of perfect quality in the canned product. It is important that the raw fruit be processed and canned while in the state of sun-mellowed ripeness. Pineapples are at their finest when allowed to mature on the plant, and canning must proceed swiftly to retain within the can the fruit's full flavor and color.

Though canning operations proceed on a 12-month basis, there is a seasonal peak during the summer months, when production capacity is taxed to the maximum. Pineapples fed to the "ginaca" machines by inclined conveyors are trimmed and cored at the rate of from 80 to 100 a minute. When that remarkable machine was introduced in the "Dole" plant back in 1910, it was the one thing which put the pineapple canning industry on a mass production basis. Prior to that, a skilled worker, tending an old type peeling machine, could handle only 8 to 10 pineapples a minute. Today, 46 of these "ginaca" machines are in operation, arranged in line formation to feed the 46 canning lines. From the "ginacas" the pineapples emerge as cylinder-shaped fruit ready to can.

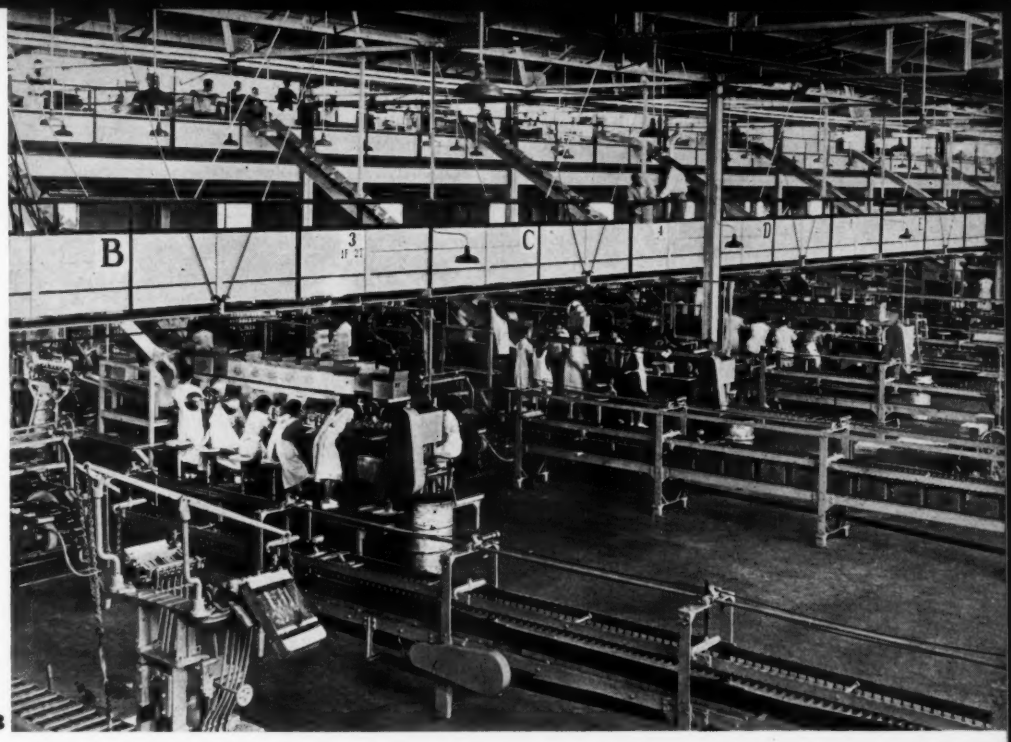
Glass partitions separate the "ginacas" from the canning room. These cylinders of fruit are automatically conveyed through the partition in stainless steel tubing without coming in contact with dust from the fruit unloading platforms. Each "ginaca" is further equipped with a conveyor for return of the pineapple shells to the by-product mill, for conversion into pineapple bran used for cattle feed and for the recovery of citric acid and other valuable by-products.

A bird's eye view of the 46 lines may be obtained by following the golden fruit cylinder into the canning room, where the fruit emerging from the "ginacas" is trimmed, inspected, packed and otherwise prepared in a most efficient manner. Tending these lines is a good-sized force of immaculately clad operatives. What particularly impresses the visitor is the large scale use of stainless steel for trimming and packing tables. The Hawaiian Pineapple Co. was a pioneer in the use of this special equipment at a time when it represented a distinct innovation in packing plants. A more recent innovation was the installation of fluorescent light equipment for serving the entire room area. This is said to be the largest installation of its kind in a fruit packing plant. The new type of illumination has greatly facilitated inspection of the

4. Empty can conveyor lines, suspended below ceiling, result in saving of floor space. 5. Filled cans enter pre-vacuumizers by series of rotating tables with high centers. Each can is inspected. 6. Processed cans flow from cooker to cooler by means of conveyor. 7. Cans leaving cooler are automatically stacked on trays by loading device shown here. When gate line is lifted, fully loaded tray may then be removed to cooling or labeling room.

(*Page 82*)

8. Arrangement of labeling lines in part of shipping floor in warehouse. 9. Close-up view of labeling line, showing position of conveyors for empty and loaded cartons. 10. Type of lift trucks employed to stack cased goods in the warehouse. Every available foot of warehouse space is used to its maximum capacity.



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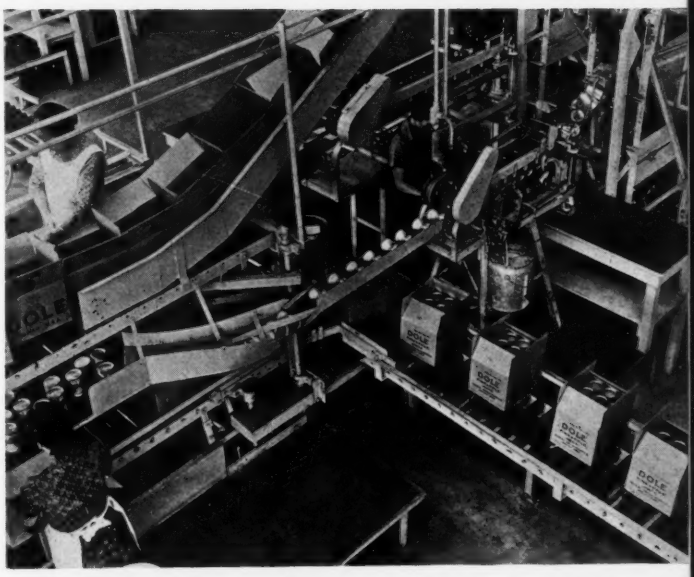

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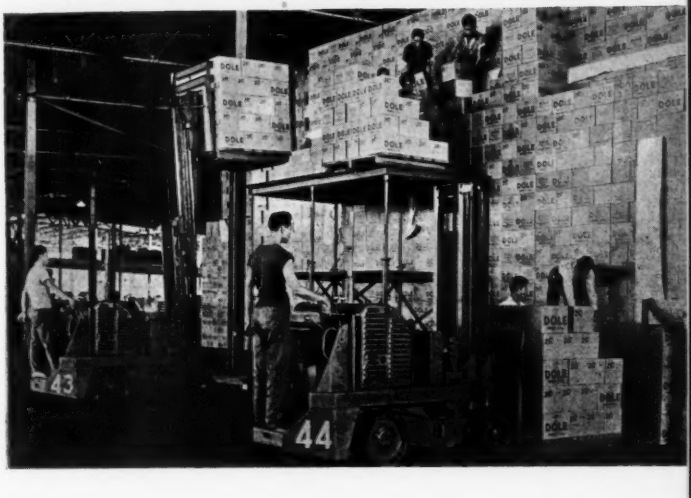

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fruit, as well as improving the general production efficiency.

Upon entering the packing tables, the cylinders of fruit are automatically propelled past stainless steel rests. Fruit cylinders requiring additional trimming are quickly picked off the line by gloved hands. When necessary, they can be quickly placed on side rests for inspection, for every pineapple must be minutely inspected for blemishes before being canned.

After the fruit cylinders leave the trimming tables, the Number II wonder of the pineapple packing industry—the "Hapco" slicers—cut the cylinders. Built especially by the Hawaiian Pineapple Co. to meet its exacting needs, the stainless steel slicers operate automatically. Fed into this machine by a conveyor, the fruit is automatically cleansed by water sprays before slicing and then as automatically emerges for packing or for further conversion into tidbits or other shapes marketed with the "Dole" label.

From that point the smooth, continuous production flow continues, through the use of various types of automatic conveyors. Empty cans are fed directly to the canning tables by a series of cable-conveying lines which connect directly with the American Can Co. branch plant, located on adjoining property. These conveying lines extend a considerable distance, through a building where the 46 lines converge in a narrow passageway, continuing on into the cannery, there again spreading out to feed each of the 46 canning lines. The lines are enclosed, so that when traveling outside the building area, the cans are fully protected against dust. At the head of each canning table there is a vertical shuttle feed connecting with the main can conveying line, enabling each operator to obtain the necessary number of empty cans for a pack.

Filled cans enter the pre-vacuumizers by means of a series of rotating tables built with high centers. As the two tables rotate, in opposite directions, a centrifugal force is exerted, sufficient to direct a single line distribution to the pre-vacuumizer. As this process goes on there is a time lapse sufficient for the attendant to inspect each can, to make sure that it has been properly filled.

An interesting example of conveyors integrated with specialized production equipment is seen (*Continued on page 100*)

New air-tight box to keep moisture in or out

Announcement by the Chicago Quartermaster Depot that a waterproof, gas-proof and air-tight folding paperboard box for the new U. S. Army Field Ration K has been approved for extensive field testing has brought to public attention a new packaging development which, after the emergency is over, may revolutionize methods of packaging a number of the most common food products.

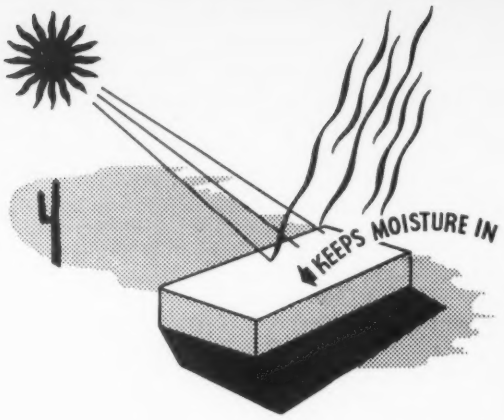
Essentially, the Quartermaster Corps' problem was one of preventing deterioration. The ration, which concentrates the daily requirements of 3,725 calories into 32.86 oz., had to be preserved in perfect condition by a protective packaging medium which would maintain its effectiveness during long periods of extreme storage conditions and rough handling abuse in the field. The customary moisture-resistant containers were found impractical either because of their failure to afford sufficient protection or because of their bulk, difficulty of opening or rigidity. For example, a sharp-cornered, rigid container in a parachutist's pocket might injure him in landing. After an exhaustive study and testing program, which included trial shipments and storage in the tropics, the Army's Subsistence Research Laboratory under the direction of Lt. Col. R. A. Isker, became interested in a new type of thermoplastic coated carton which had originally been developed for the frozen food industry.

Deterioration of frozen foods is caused by oxidation and loss of moisture. Deterioration of the Army food ration was caused by oxidation and moisture absorption. In both cases it was necessary to prevent the free passage of moisture and oxygen through the package. The search for better frozen food packages has been in progress for years, a search made difficult by numerous complicating factors. Not only was a packaging medium required that would prevent moisture and oxygen transmission, but also a new automatic packaging process which would relieve the production bottleneck existing in most plants.

In the past, most frozen food packages have been constructed out of a combination of materials, sometimes bonded together and sometimes independent. Frequently the full protective value of the moisture-resistant material was not realized due to the failure of imperfect seals or closures. The

(Page 84)

This might be titled, "Dunking for Defense." Thomas F. Cass of Container Corp. of America, Lt. R. R. Melson and Lt. R. A. Isker of the QMC Subsistence Laboratory examine the experimental Field Ration carton which has been approved for field testing.



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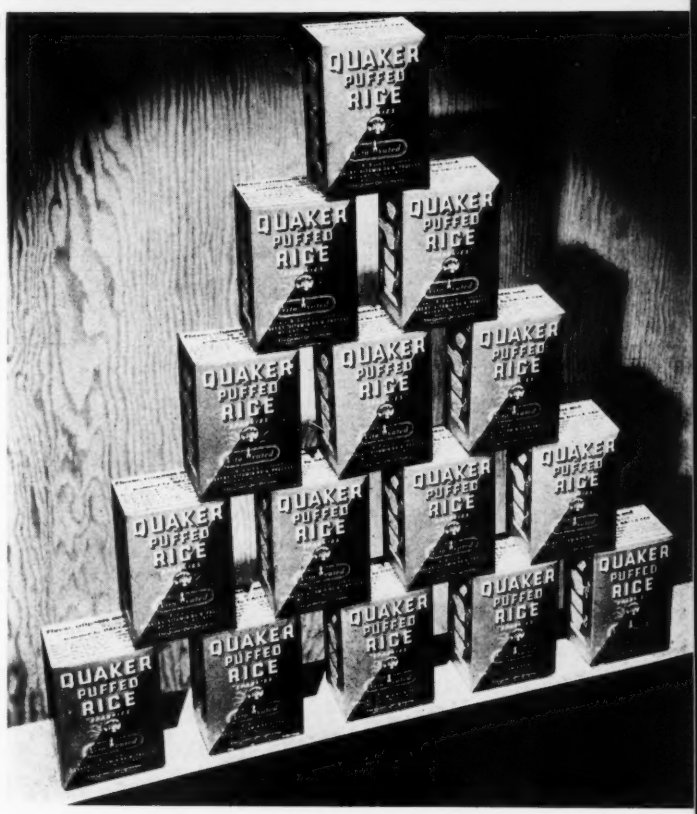

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net result was loss of quality protection with added production problems and comparatively high costs due to the necessity of handling multiple unit packages which were not adaptable to high-speed automatic machinery. It was these complex problems the new process was designed to overcome.

This new process is the result of several years of laboratory research and field experiments. The preliminary steps included an exhaustive study of all the available moisture-resistant fibre and coating which could be adapted to folding carton application. It was of vital importance to find a material which could be formed into a sealed carton in which all possibility of leakage and "wickage" (transmission of vapor through unprotected fibre) would be eliminated so that the closed carton would have the same low moisture-transfer rate as the protective material itself.

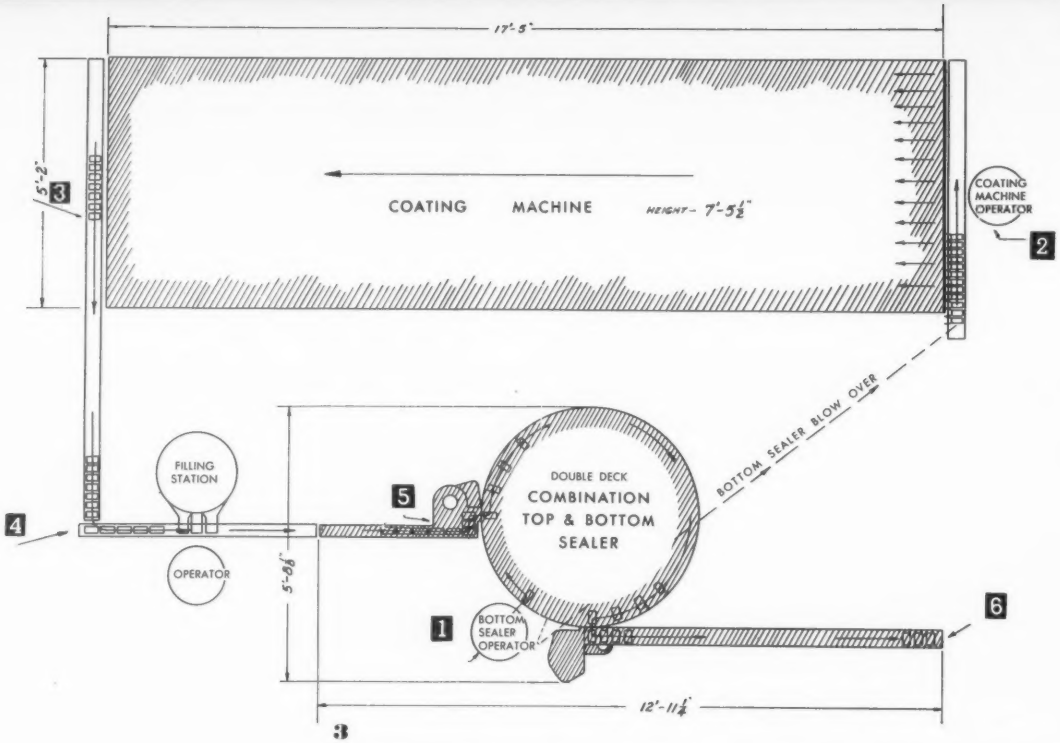
It was this failure to obtain perfect seals and to prevent wickage action along the cut edges of the carton that made it impractical to use such materials as wax, coatings, laminated boards and combination of membranous fibre. It became evident that it would be necessary to use some form of thermoplastic coating material which, in the sealing operation, could be "flowed" into all the cracks and crevices of the carton joints to seal all cut edges of board to prevent wickage.

As a result of this study, a thermoplastic coating material has been adopted. This compound, composed primarily of unmilled pale crepe rubber and a blend of waxes, is processed so that the resulting material is amorphous in character and will form a continuous surface film when coated on paperboard. Unlike ordinary waxes, composed of tiny crystals which, although tightly packed together, allow the passage of moisture and other gases, the new compound, because of its components and amorphous character, is practically impervious to moisture-vapor, oxygen and many other gases. This flexible coating material, which is odorless, tasteless and non-toxic (all essential qualities in food packaging), is unaffected by temperature fluctuations below its melting point and is physically stable over long periods of time. Of distinct advantage and usefulness in the sealing operation of this new process is the ability of this compound to go into an intermediate or "gel" state under heat between its solid and its liquid form.

The final step in the development of this new packaging method was the working out of practical commercial means of applying this new compound to folding cartons and to methods of hermetically sealing the carton on automatic production machinery. Coating one or both sides of the paperboard before fabrication of the carton was found to be impractical due to the nature of the compound. Dipping a filled and sealed carton was objectionable, principally because this method failed to prevent a free transfer of moisture and odors from the board to product; because of the danger of spoiling the effectiveness of the barrier by scraping the coating off the outside of the carton and finally because of the temperature problems involved in dipping a box of frozen foods into a hot thermoplastic. The new method makes possible the application of a continuous film of the moisture-proof thermoplastic to folding cartons and a means for sealing these coated cartons to maintain this continuous barrier film across the seal and all cut edges.

1. Chain stores use unprinted Dacca-coated cartons for a line of frozen foods. The simple paper wrap gives product identification. 2. No outside wrap hides the design of these Dacca-coated cartons for Quaker's puffed rice.

One of the outstanding advantages of the process is its adaptability to high-speed, automatic production machinery. In commercial operation the processing is done on special machinery in the packer's plant. Flat, uncoated folding cartons, which may be attractively printed, are set up and automatically bottom-sealed with adhesive on standard type machines just like any ordinary seal-end carton. Before filling, however, the set-up cartons are put through a coating ma-



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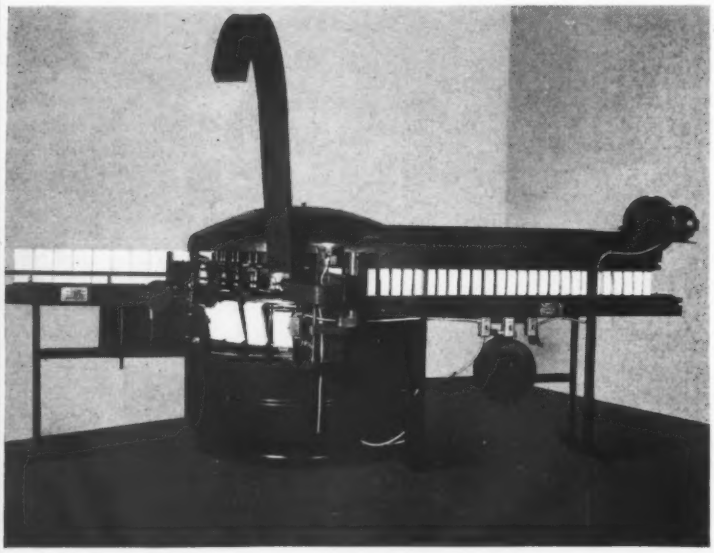

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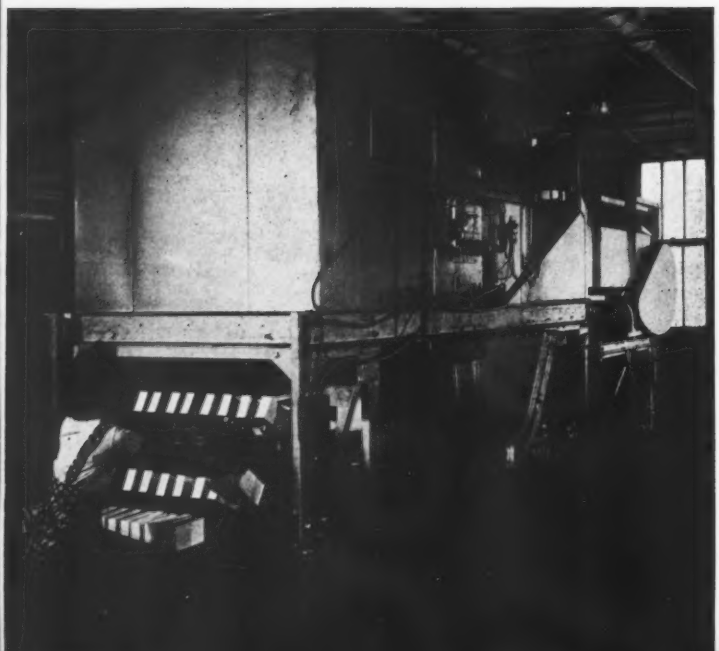

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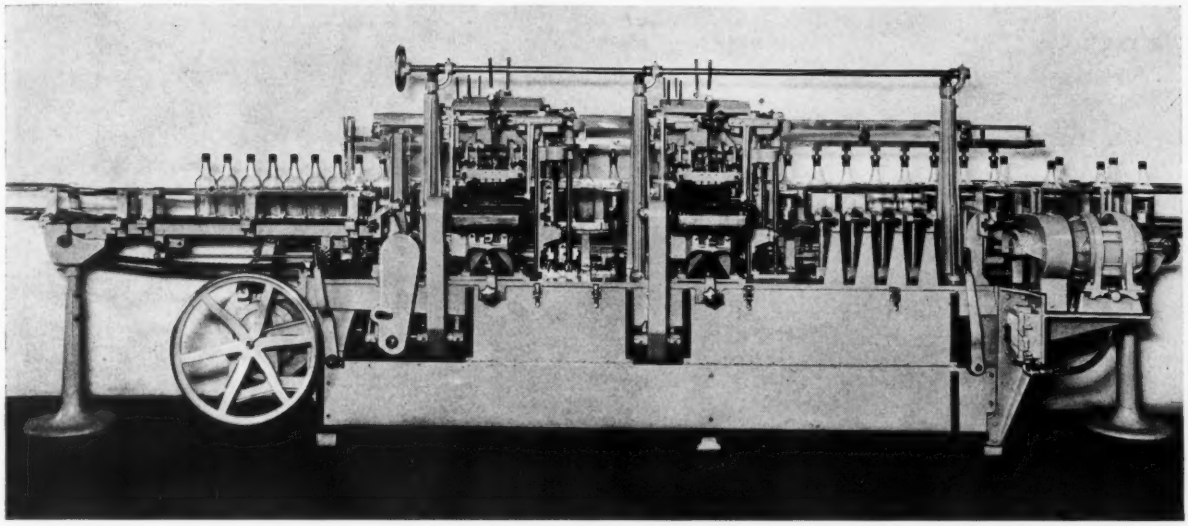
3. Flow chart. (1) Flat un-sealed and un-coated cartons are started through sealer at this point by operator merely squaring up the tube and slipping tube down over the mandrel blocks. (2) Operator merely picks up bottom-sealed but, as yet, un-coated cartons and places pins of conveyor on coating machine. (3) Coated cartons drop off the finishing end of coating machine and drop on to a cross conveyor, bottom seal down with opening upright ready to receive load at filling station. (4) Coated cartons change direction of travel at 90 deg. angle and proceed under filling machine where load is received. (5) Filled cartons are automatically spaced and projected into the pockets of top sealing unit. All flap bending, heat and pressure application, as well as drip control, are automatic. (6) After proceeding around the heating and pressure cycle for 270 deg., the packages are automatically ejected into a pressure dryer belt which completes the solidification of the "flow" seals. 4. The beginning and the end. On the lower tier knocked-down cartons are set up and bottom-sealed. On the upper line coated and filled cartons receive their final heat-sealing. 5. Coating machine. The operator places the cartons on mandrels of a conveyor. From there on the operations of coating, draining and cooling are automatic. When cooled, cartons are filled.

chine which completely immerses the cartons in the molten thermoplastic compound, drains them to the proper film weight (controlled by temperature of draining oven) and cools them ready for filling. By coating the cartons after they are bottom-sealed, a continuous impervious film is obtained both on the inside and outside of the carton and also across the bottom seal and side "manufacturer's" joint. After filling the coated cartons with the product on regular fillers, the cartons are automatically fed into a special sealer for the final closing operation. This step, which is difficult for most coated or laminated packages, is made feasible by the nature of the thermoplastic coating material in its intermediate or "gel" state. In the sealer, the top flaps are folded down and, with the application of carefully controlled heat, the thermoplastic compound on the top flaps is brought to its "gel" state and then pressure is applied sufficient to "flow" the coating into all the joints of the top seal. This operation insures the continuity of the barrier film, securely bonds the flaps together and re-anneals all scores which have been broken since the coating operation. (*Continued on page 98*)

"IT'S A HONEY" is what they say about this



WORLD AUTOMATIC BEE-LINE STRAIGHTAWAY LABELER

"The new **WORLD BEE-LINE** certainly gets us out of a production jam. It keeps up with maximum production schedules and it has cut our per label cost to the lowest ever."

"The **BEE-LINE** is a joy to operate — everything is so easy to reach and convenient to get at. That exclusive new BEE-LINE feature, the overhead multiple bottle grip adjuster saves us plenty of time."

"You can quote us as saying we have never had a safer, smoother ride than on the **BEE-LINE.** No more crowding, shoving and bumping for us. We come through all dressed up as slick as a whistle, and that goes for all of us whether we carry honey or hand lotions, catsup or cosmetics, beverages or blackberry jam."

"We look like a 'million' when we come out of the BEE-LINE. It puts us in our place, gums us just right and hands us a couple of pressure wipes that mean business when it comes to smoothness and firmness."

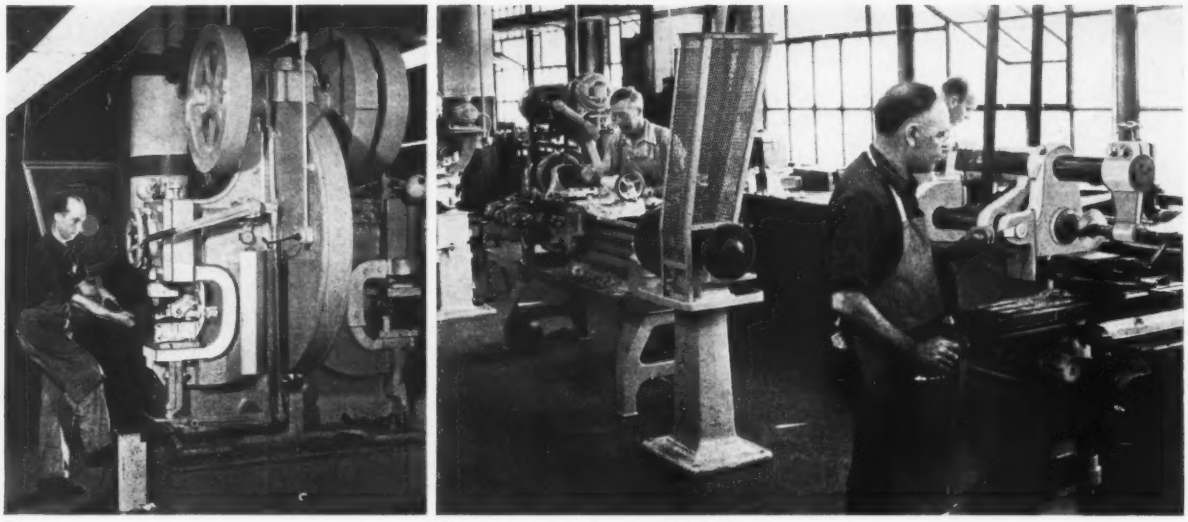
For the whole story on the WORLD Automatic BEE-LINE Straightaway Labeler, write for Bulletin B-7.

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

Worcester, Massachusetts

NEW YORK PHILADELPHIA PITTSBURGH CHICAGO SAN FRANCISCO DENVER LOUISVILLE
SALT LAKE CITY EL PASO SEATTLE PORTLAND LONDON MONTREAL TORONTO WINNIPEG
SPOKANE VANCOUVER SYDNEY, AUSTRALIA WELLINGTON, N. Z. SAN JUAN, P. R.



1 2

It is no more sensible to obscure working areas on machinery with dark paint than to finish piano keys in the same color as the wood case. 1. This punch-press painted in contrasting colors, for example, spotlights the working area. 2. Rotary saws become much less hazardous when surrounding machinery is painted a contrasting color.

Bright colors on machinery

*by Allan Perry**

"Three-dimensional seeing" is the name given a new technique which combines illumination with bright, contrasting paint colors on machinery, not simply to make it look pretty or "sanitary," but to improve workers' vision. Because better "vision" results in reduced accident hazards, increased production, more comfortable working conditions and fewer production errors, the technique is of particular interest to packaging plant managers.

The above benefits are not just logical suppositions. A two-year investigation made jointly by E. I. du Pont de Nemours & Co., Inc., and the Philadelphia Electric Co. proved them to be facts. The research, undertaken originally by lighting and color experts when faced with the problem of throwing light into the interior of a 1,000-ton press, grew to a full-fledged experimental program under actual shop conditions. Since the announcement of the findings last September, this new theory of machine painting has been applied in several plants.

"Three-dimensional seeing" is based upon the following:

The eye is automatically attracted to a bright spot. That easily demonstrable fact has too often been overlooked in industry. Most factory machines are painted dull, dark colors or left unpainted.

Materials which are being fabricated all too frequently blend with the conventionally dull machine finish to produce effects of camouflage. Whether it is a white package being turned out by a white-enameled machine or chocolates in a wrapping machine painted brown, the operator's eyes are strained in the ceaseless effort to see.

Packaging machinery, operating at high-speeds, presents its share of injury hazards. It is impossible to safeguard machinery completely by mechanical devices. "Three-dimensional seeing" seeks to supplement these guards and round them out by "spot-lighting" the hazard points. At the same time, this technique accomplishes other objectives.

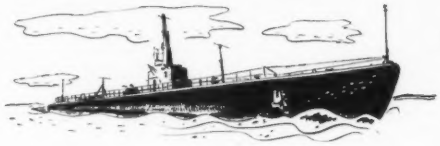
Machinery that is highly automatic puts a premium on the sight of the operators, who may be said to serve also as inspectors. They must be ever on the alert for production imperfections, which may necessitate painstaking mechanical adjustments. These may be needed in the interior of a machine where light-reflecting surfaces would be of decided value in boosting whatever illumination is available. The spot-lighting principle again applies.

It is no more sensible to obscure the working areas of machines—potentially dangerous or not—by an over-all coat of traditional dark paint, than it would be to finish the keys of a piano in the same color as the mahogany piano case.

Part and parcel of the problem of improving vision, too, are such worth-while considerations as the amount of artificial lighting being soaked up by the dark, low-reflecting surfaces of the machines, floors, overhead belts and wheels, to say nothing of the psychological effect produced upon workers who are constantly combating conditions that do not make for ideal vision. (*Continued on page 102*)

* Public Relations Dept., E. I. du Pont de Nemours & Co., Inc.

Fresh Cereal



THREE WEEKS OUT AND 100 FEET UNDER

Twenty-one days out of port. Isolated in a steel hulk deep under water. Yet they're breakfasting on fresh, crisp cereal as tasty and nutritious as the day it was made. Modern moisture- and insect-proof containers make indefinite preservation of many such foods a practical fact. Yet the mass production of today's protective packages would still be only a dream but for automatic equipment.

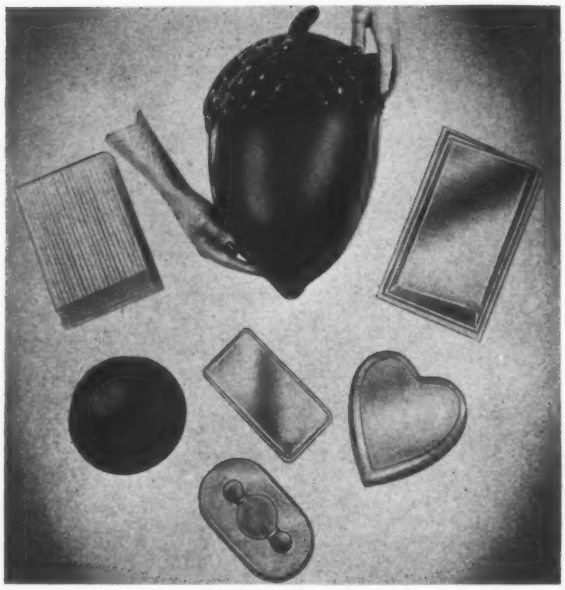
Since the pioneering days, *Pneumatic packaging machinery* has been recognized as the standard of excellence in design construction and operating efficiency. The list of Pneumatic users includes with hardly a single exception the leading names in cereals, flours, soaps, desserts, teas, coffees, crackers, and dozens of other nationally-known and nationally used products. Pneumatic equipment has won this outstanding leadership through its year in and year out "lower cost per container operation."

Today, part of Pneumatic's engineering and production facilities are enthusiastically devoted to defense; part to supplying equipment for packaging products essential to both civilian and service populations.

PNEUMATIC SCALE CORPORATION, LTD.
71 Newport Avenue, North Quincy, Mass.
NEW YORK • CHICAGO • SAN FRANCISCO • LOS ANGELES

★ PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

Equipment and Materials



Shapes, curves, angles possible by new molding process.

NEW PLASTIC MOLDING PROCESS

New process of plastic molding which promises advantages in packaging has been developed by Walco Plastics. By this process such materials as cellulose acetate are molded into a variety of intricate shapes including various rigid transparent acetate boxes with compound curves and angles. This process, the originators claim, involves a new mold construction which results in an extremely low die cost and makes small production runs economically possible. Hand cementing and stitching of seams have been eliminated without any loss of structural strength and dimensional stability. The sheet-molded products, so the manufacturers declare, will not usually require a buffing or polishing operation to smooth down rough edges or die seams. The process will mold sheets from .005 in. to .500 in. thick.

A giant display perfume bottle, for example, is 27 in. high and 13 in. in diameter. Produced by conventional mold methods, dies for such a piece might be prohibitively expensive. Cost of material, it is asserted, is reduced to less than half for such a piece because less material is required. Illustrations show the range of possibilities in shapes, sizes, curves and angles.

RECLAMATION OF COLLAPSIBLE TUBES

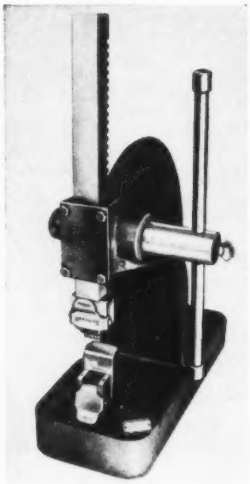
The Toilet Goods Assn. has joined in the cooperative campaign with the Packaging Institute and the Collapsible Tube Mfgrs'. Assn. to assist in the reclamation and salvaging of collapsible metal tubes used for tooth paste, shaving cream, etc., according to a bulletin released by S. L. Mayham for the special priorities committee of the Toilet Goods Assn. A mechanism is being set up whereby such tubes may be deposited by the public at retail drug stores and will thence find their way to a company called "The Tin Reclamation Institute." Lee Bristol of Bristol-Myers Co. is head of the committee in charge of the work. Plans have the approval of OPM and metal reclaimed will be used and distributed as OPM directs. Members of the Toilet Goods Assn. are requested to: 1. Instruct salesmen to advise druggists of the plan. 2. Print on new tubes, "Save this tube. Its metal is valuable for National Defense." 3. Plug the campaign consistently on all their radio programs.

FIRE RETARDING PAINTS

Fire retarding paints have been the subject of a study by Forest Products Laboratory, Madison, Wisc. Beginning with the premise that there is a lack of interest in such paints the study includes tests to measure the effectiveness of fire-retardant coatings in checking flame spread, tests of ignition temperatures as well as various types of preparations which provide protection. The Forest Products Laboratory (a service of the U. S. Department of Agriculture) will give full information on request.

NEW EMBOSSING PRESS

Unusual feature of Acromark Corp.'s new Hercules embossing press is the visibility afforded by means of a mirror-finish metal plate back of the female holder. This reflects the image of each character face in a manner which expedites character changing. This new Arbor Press outfit embosses letters or figures into metal name plates, tags, badges, etc. It is claimed that the marking is indestructible, difficult to duplicate and thus affords a safeguard against counterfeiting. Type is quickly interchanged by simple thumb pressure on the holding clip. The accurate square ram of the press insures perfect meshing of characters, the company release claims.



ELECTRIC HEAT TO APPLY "HOT MELT"

Electric heat, thermostatically controlled, has been found by the Standard Process Co. to be most suitable for applying Liquafilm, a thermoplastic "hot melt" used on labels, magazine covers, packages and candy box covers. The cellulose acetate, which must be applied to a temperature of 280 deg. F., is first heated to a temperature of 275 deg. F. in a tank equipped with six 1,000-watt and seven 500-watt heaters. The thermoplastic is then drawn into another tank heated by seven 500-watt heaters to 280 deg. F. Both tanks are located at the bottom of the processing machine. As the paper enters the machine, the coating is applied by a roll which is kept warm by a 250-watt heater. A blade warmed by a 500-watt heater "doctors" the roll. The paper is then contacted by two smoothing and glazing blades, each heated by a 3,000-watt heater.

NEW ELECTRON MICROSCOPE

Interchemical Corp. announces the use of an electron microscope developed by RCA which permits magnifications up to one billion times the area of the object magnified. The corporation expects the microscope to open up a new world of study by making it possible to examine with much greater clarity the structure of pigments. Thus the character of printing inks, industrial finishes, textile colors, dry colors and similar materials may be determined and observed in Interchemical's Research Laboratories with a scientific accuracy not possible heretofore.

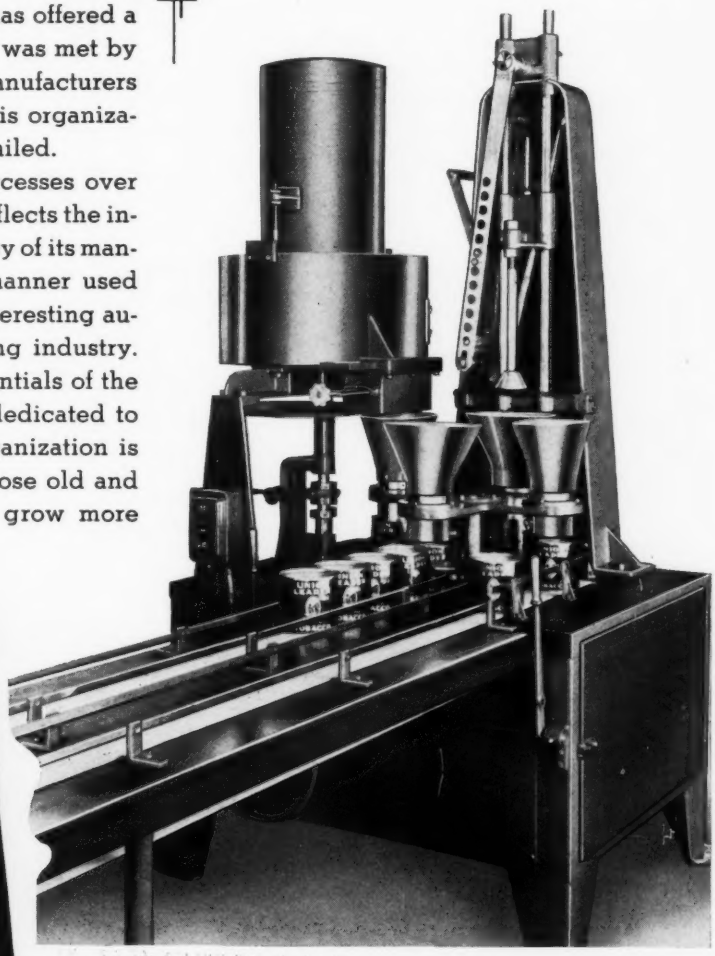
The electron microscope is taller than a man and has a long tube extending down in front of an instrument panel. Whatever is to be magnified is placed on a screen disk about an eighth inch in diameter. The screen is inserted in an aperture in the tube which is closed up again to form an air-tight chamber.

Every Day Brings New Packaging Problems!

THE LIST of products, the packaging of which is being done by "Wright" machines, reaches fairy-tale proportions. From tobacco to tea; from sheets to whiskey—each has offered a separate and distinct challenge that was met by this organization. Many times, manufacturers have entrusted their problems to this organization with success, after others had failed.

The continuing record of successes over Wright's half-century of operation reflects the ingenuity of its engineers, the efficiency of its manufacturing and the business-like manner used by "Wright" in creating new and interesting automatic machinery for the packaging industry.

And today...when many essentials of the packaging industry rightfully are dedicated to the nation's common task, this organization is serving, to the best of its ability, those old and new customers whose problems grow more acute with each passing day.



Wright's Improved Humidor Packer for 4 to 16-oz packages of free-flowing and fluffy material where compression is desired. Weighs all material accurately...An ideal machine for coffee, cereals, rice, beans, peas, tobacco, etc.

A FEW USERS OF WRIGHT MACHINES

AMERICAN TOBACCO COMPANY
FRANKFORT DISTILLERIES, INC.
LIGGETT & MYERS TOBACCO CO.
NATIONAL DISTILLERS
R. J. REYNOLDS TOBACCO CO.
BRITISH-AMERICAN TOBACCO CO.
GLENMORE DISTILLERIES CO.
P. LORILLARD TOBACCO CO.
AXTON-FISHER TOBACCO CO.
PENN TOBACCO COMPANY
SCHENLEY (GEORGE T. STAGG) DISTILLERIES, INC.
J. T. ROBERTSON CO. OF CANADA
W. C. McDONALD TOBACCO CO.
HIRAM WALKER & SONS, INC.
ROCK CITY TOBACCO COMPANY
LARUS & BROS. COMPANY
WEISERT BROS. TOBACCO COMPANY
SCOTTON DILLON COMPANY
BROWN-WILLIAMSON TOBACCO CO.
TUCKETT TOBACCO COMPANY
CHRISTIAN PEPER TOBACCO CO.
THOS. J. LIPTON, INC.
SALADA TEA COMPANY
UNITED STATES TOBACCO CO.
PHILLIP MORRIS & COMPANY
BENSON & HEDGES, MONTREAL
McCORMICK & COMPANY
STEVENS-WILEY MFG. COMPANY
NESTLE'S LE MUR COMPANY
SYDNEY-ROSS COMPANY
DE NOBILI TOBACCO COMPANY
PARODI CIGAR COMPANY
JOSEPH TETLEY TEA COMPANY
GEORGE W. LUFT COMPANY
J. C. WINTERS COMPANY

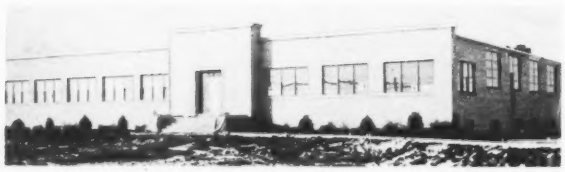
ESTABLISHED • 1893 •

PACKAGING ENGINEERS

WRIGHT'S AUTOMATIC TOBACCO PACKING MACHINE CO.

DURHAM CABLE ADDRESS YONWRIGHT NORTH CAROLINA, U. S. A.

Plants and People



The J. L. Ferguson Co. has moved into a new plant designed, built and equipped for the manufacture of Pack-O-Matic packaging machinery. Situated on a four-acre tract of land, the one-story building has 30,000 sq. ft. of floor space with abundant natural light in all parts. Fire protection and water supply are assured by a deep well on the premises. Offices, running across the entire front of the building, are divided from the factory by a tile wall. Dedication ceremonies featured a dinner for employees and their families. Honors were accorded to Miss Estella L. Koenig, secretary of the company, who celebrated her twentieth anniversary with the firm.

J. L. Ferguson

Landscaping of the grounds, partially accomplished in the fall, will be completed in the spring. Ample space has been reserved for a recreation field for employees.

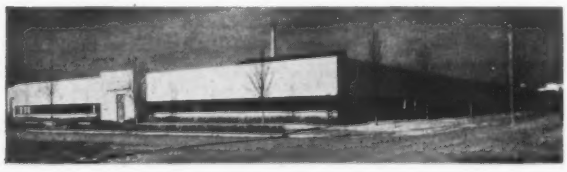
Owens-Illinois Glass Co. appoints Clark L. Rodgers eastern sales manager. James W. Colbert takes Mr. Rodgers' former post as manager of their New York branch. J. A. Runnells becomes southern sales manager. R. E. Delaplane becomes division manager of liquor ware in the Toledo office.

Leland S. Connick, formerly assistant manager of Owens-Illinois San Francisco branch, will be transferred to Los Angeles as manager of the company's sales office in that city, according to announcement made by W. I. Cole, vice-president and general sales manager. Mr. Cole also announces appointment of T. E. Manwarring, formerly assistant branch manager at Los Angeles, as manager of the San Francisco sales office.

Paper Affiliates Co., Inc., and Nalco, Inc., have moved to a new address at 203 E. 18th Street, New York City.

Freydberg Bros.-Strauss, Inc., is the new firm name of the concern formerly known as Freydberg Bros., manufacturers of special cords for packaging. The firm is celebrating its forty-fifth anniversary.

Ace Carton Co. is in full operation in their new plant, comprising 92,000 sq. ft. of windowless working space, in the Clearing Industrial District of Chicago. Completely air-conditioned, the plant is equipped with modern humidity control and fluorescent lighting throughout and has enclosed railroad siding.



"Master craftsmen" is the name selected by a group of manufacturers in the set-up paper box industry who have adopted a symbolic trade mark and will tell the story in business papers of their facilities for helping to market packaged merchandise in attractive form. The campaign will be handled by the James G. Lamb Co. which participated in formation of group.

Recently formed organization consists of 26 or more canners throughout the United States who are packing canned fruits and vegetables under the continuous inspection system of the Agricultural Marketing Service of the Dept. of Agriculture. The organization has been incorporated under the name Government Inspected Fruit & Vegetable Packers, Inc. First meeting was held in Chicago, January 24, where officers were elected and promotional plans adopted. The Association will develop a symbol or seal, in connection with government inspection, identifying its membership as users of the U. S. Grade A label.

New sales director for Crown Can Co. is F. Gladden Searle. Twenty-two years ago, shortly after returning from army service in France, he took over sales representation of the Continental Can Co. in Indiana. He eventually moved up to become general sales manager of that company in 1936 and in the same year was appointed vice-president in charge of sales and advertising. Mr. Searle will make his headquarters in Philadelphia.

F. Gladden Searle

Dr. Howard E. Fritz, who directed the development and sales of Koroseal, has been appointed director of research of the B. F. Goodrich Co., according to announcement by John L. Collyer, president of that company.

Continental Can Co., Inc., announces the election of Charles L. Jones to the board of directors.

Container Corp. of America announces appointment of Freeman Higgins as package machinery consultant. Mr. Higgins, who will be a member of the sales promotion staff headed by E. A. Thockmorton, has been associated for the last 19 years with Johnson Automatic Sealer Co. and Battle Creek Bread Wrapping Machine Co.

The Monsanto Chemical Co. will erect a $2,000,000 plant near Galveston, Texas, for the mass production of synthetic rubber.

J. N. Davies takes charge of The Aridor Co.'s New York office. J. P. Swift now represents them in western New York. J. R. Carroll assumes charge of the Philadelphia office.

Vergil D. Reed, associate director of the Bureau of the Census, was elected president of the American Marketing Assn. to succeed Howard T. Hovde and was inducted into office at the mid-winter convention of that organization in New York during the holidays. Dr. Hovde becomes a director of the association.

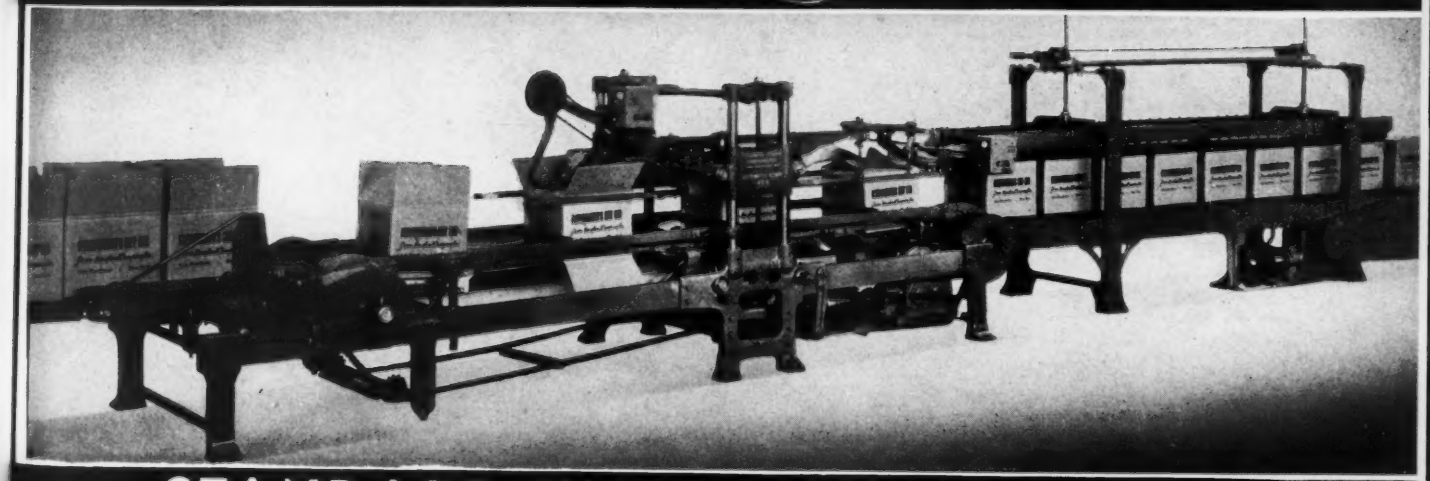
OBITUARY

Clayton H. Englar, pacific coast sales manager of the Continental Can Co., Inc., and widely known among west coast canners, died early in January in San Francisco, Calif.

"SMEET"

Spam or Prem, Tang or Treet,
Morrell, Hormel—all mean meat—
From tin to carton without mishap
All case sealed by Standard-Knapp!

Here is another industry in which every leader—every nationally known name—is case-packed or case-sealed by Standard-Knapp machinery. The reason for this dominance in all fields of packaging is simple. Standard-Knapp equipment runs with less trouble, less cost, more satisfaction.



STANDARD-KNAPP CORPORATION

MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES

FACTORY and GENERAL OFFICES PORTLAND, CONNECTICUT

570 Lexington Ave.
NEW YORK, N. Y.

208 W. Washington Street
CHICAGO

702 Society for Sav. Bldg.
CLEVELAND

300 Seventh Street
SAN FRANCISCO

420 S. San Pedro Street
LOS ANGELES

3224 Western Avenue
SEATTLE

1208 S. W. Yamhill Street
PORTLAND, OREGON

Paul Brown Building
ST. LOUIS, MISSOURI

Windsor House, Victoria Street, LONDON, ENGLAND

For Your Information

The 1942 Plastics Catalog, just off the press, meets the need for an authoritative, timely and complete source of information about plastics. Interest in plastics has never been higher. War needs have developed countless new uses for these versatile materials. Though at the present moment many plastic products are being denied to packagers because of prior needs for defense, nevertheless research and manufacture will continue to develop materials which will be available for packaging once the emergency is over.

The new Plastics Catalog contains documented facts, charts and informative illustrations which make it an indispensable reference work. The book is divided into ten main sections, including an exhaustive treatment of plastics in defense. Other sections treat of the following: "Materials" (containing 25 articles covering such subjects as new developments, phenolic asbestos compositions, polyterpene, hydrocarbon resins and shellacs). "Plastics Engineering" contains flow charts showing manufacturing procedure involved in producing each type of material, supplemented by photographic illustrations.

"Production Operations" section includes discussions of all known types of operation. Sections on "Machinery and Equipment," "Laminates and Vulcanized Fibres," "Plastic Coatings" and "Synthetic Fibres and Rubbers" have been extended to include newest developments. The now famous "Plastics Properties Chart" has been revised and amended bringing its contents fully up to date.

The "Index and Directory" section comprises complete lists of manufacturers and material suppliers, trade names, personnel and equipment, bibliography and a list of educational institutions concerned with plastics. Published by Plastics Catalog Corp. Price, $5.00.

American industry is planning for the future, according to a new survey just released by National Industrial Advertisers Assn. This planning is taking the form of maintaining and, in some cases, increasing advertising effort. The figures were supplied by more than 300 industrial advertisers and are based on 1941 expenditures. Greatest increase in industrial advertising, according to the study, has taken place among medium-sized companies. Though their plants are loaded with war orders, many companies are apparently extending their advertising effort in order to retain customer good will and insure continued product acceptance. This report is the eleventh consecutive budget study made by the National Industrial Advertisers Assn. Copy may be obtained from N.I.A.A. headquarters at $2.50.

Labeling of dietary foods will be under strict regulation beginning May 18, 1942, according to instructions promulgated by Federal Security Administrator Paul V. McNutt. Mr. McNutt points out that "fully informative labeling" as specified in regulations on foods for which special dietary claims are made, is squarely in line with the national program for better nutrition. These new regulations may be obtained by writing to the Superintendent of Documents, Government Printing Office, Washington, D. C. Price, 10 cents.

Wolf Retail Awards—N.R.D.G.A. Though anticipating a smaller number of entries than usual, the National Retail Dry Goods Assn. went through with plans to conduct its 7th Annual Competition for most effective packages designed by or expressly for a retail store. The exhibit took place during the Thirty-first Annual Convention of the N.R.D.G.A. in New York, January 12–16. The number of classifications was reduced to three. Entries in the groups though disappointing in number, represented careful thinking. Winners were: Group 1, Saks, 34th Street, hand and face soap package selected as the most effective new package developed for merchandise not previously packaged by the store; Group 2, L. Bamberger & Co.'s dress box containing plastic sheeting bag for customer re-use as best redesigned package; Group 3, joint award to Sears Roebuck & Co. and to Harzfeld Co., Kansas City, for group of packages. Judges were: Egmont Arens, industrial designer; Richard F. Bach, Metropolitan Museum of Art; C. B. Larabee, managing editor Printers' Ink, and Christopher W. Browne, editor Modern Packaging.

"To give important users of glass containers an accounting of its stewardship" is the purpose of an impressive brochure issued by Owens-Illinois Glass Co. Bits of company history, product uses and advertising presentations are featured in four-color reproduction. The book is receiving well merited admiration.

"Outlook for Food Sales in 1942," prepared by the American Institute of Food Distribution, contains much meaty material about foods of use to anyone concerned with the production and marketing of America's food stocks. Encouraging note is that this country has an abundant supply to meet the terrifically increased demands.

"Kimpak" is thoroughly described and its uses illustrated in a new booklet issued by the Kimberly-Clark Corp.

The new fabricating manual on Plexiglas, issued by Röhm & Haas, is of genuine practical value and contains detailed instructions and blue print illustrations explaining methods of application of this material.

Booklet No. 5 of Acme Steel Co. gives essential strapping specifications accompanied by illustrations for the packaging of army and navy materials.

Latest developments and applications of poster stamps are to be found in the McLaurin-Jones Co.'s booklet, "You Can Use Poster Stamps in Your Business."

New swatch books of fancy papers have been issued by Hampden Glazed Paper & Card Co. and by Matthias Paper Corp.

"The Economic Effects of Advertising" by Neil H. Borden, Richard D. Irwin, Chicago, 1942. 988 plus *xl* pages. This is a huge and important book. It deserves more space than it can be given here. Yet, strangely, it does not do the job it was supposed to do, namely, to confound the critics of advertising. The author has gathered factual data and made no conclusions without proper documentation. He has found in advertising's favor, a socially useful and desirable force, but only after careful balancing of pro with con.

Yet he has, to a certain extent, fallen into the critic's trap. He has taken "advertising" as an entity, albeit defining and delimiting the term. Packaging gets only five unimportant mentions in the work. Another almost unexplored criterion is media. The writer gives lip service to the various types, to be sure, but most of his study deals with open space and time in consumer media. He devotes a brief page to business papers in the appendix, but fails to consider them in their important relation to other media. Their total dollar volume is insignificant in rela-

tion to their influence. Mr. Borden's undissected assumption seems to be that expenditure is the important measure. His selection of case histories of tobacco, walnut and lettuce, sheeting and other industries is sound social science. But he takes them merely as segments instead of entities, which they are.

There are *certain* ills in *certain types* of advertising. These are reflected in consumer movements and legislation designed as correctives. Professor Borden only vaguely suggests this approach to the question. However, his book if treated as a reference work of statistics, facts, figures, case histories is an exceedingly useful tool for any business man.

Theme of the American Management Assn.'s annual packaging conference and exposition will be today's most urgent packaging problem—using existing materials and developing substitutes for restricted materials. This conference, the twelfth to be sponsored by the AMA will be held at the Hotel Astor, New York City, April 14–17.

Leading suppliers of equipment, materials and machinery will present the most recent advances in substitute materials and in techniques of packaging, packing and shipping at the Packaging Exposition, held concurrently with the conference.

"The Packaging Conference and Exposition," according to a statement by the AMA, "annually brings together, in one place and at one time, many thousands of users and suppliers of materials and machinery for packaging, packing and shipping. This year, all these men and companies find themselves confronted with an acute, unprecedented problem."

Consumer Advertising in a War Economy is the vital topic for the opening forum of the third year of Printing and Advertising Clinics sponsored by General Printing Ink Corp. on the evening of February 17 in the auditorium atop the Port of New York Authority Building, New York City.

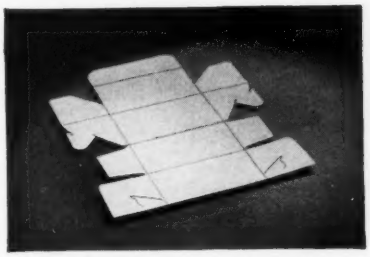
The clinic will be conducted entirely by women in business. Mrs. Lucy R. Milligan, secretary of the Home and Industry committee of the National Assn. of Manufacturers is program chairman. Guest of honor will be Mrs. Anna Steese Richardson, consultant on consumer problems, with the printing house of William E. Rudge & Sons, Inc. The discussion on "Priorities and Substitutes" will be led by Miss Mabel G. Flanley, director of consumer relations for the eastern division of the Borden Company. Mrs. Barbara Daly Anderson, director of consumer research bureau, *Parents'* Magazine, will be in charge of the section on "Nutrition and Prices." Because of limited seating capacity, attendance is by invitation on request care of Herbert Kaufman, General Printing Ink Corp.

Plans are underway for the next clinic to be held in April. Subject will be "Advertising in War, with British, Canadian and American authorities as speakers.

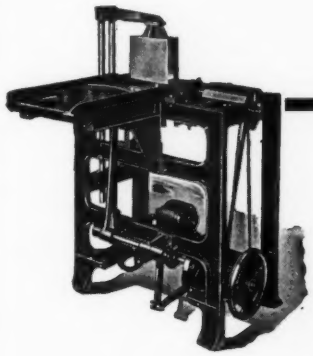
"The Care of Perishable Food Aboard Ship," by Dr. Mary Engle Pennington and published by George Ehlenberger & Co., Inc., purveyors of butter, eggs and cheese, offers a valuable source of information to those engaged in businesses involving the shipment of perishable foods which must withstand long sea voyages. The purpose of the book as stated by the publisher, is an attempt "to substitute genuine scientific facts for rule of thumb methods and legends on the care of food handed down from sailing ship days." During 1940, the author was presented by the American Chemical Society with the Garvan Gold Medal for "distinguished work in chemistry in her field." In an article entitled "The Ice Woman," the *New Yorker* magazine recently said of her, "This country's supreme authority on matters connected with refrigeration of perishable food stuffs." Copies free on request.

Correction: In item No. 4 of the "Packaging Pageant" for January, credit should have been given to A. Fleisig Sons Folding & Set-Up Paper Box Corp. for boxes used by Herba, Inc., distributor for Maison Carnaud, instead of to H. Fleisig, Inc.

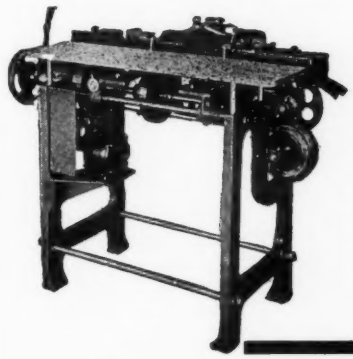
TO *Set Up and Close*
YOUR CARTONS ON A PRODUCTION BASIS IS NOW ALMOST IMPERATIVE



Type of die cut cartons handled on machines



To SET UP cartons at speeds of 30–40 per minute, this PETERS JUNIOR CARTON FORMING AND LINING MACHINE is used. One operator is required to feed the cartons and liners, if used, into machine. Cartons drop onto conveyor belt where they are carried to be filled. Can be made adjustable.



To CLOSE cartons at speeds of 30–40 per minute, this PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE is used. The open, filled cartons are conveyed into this machine where they are automatically closed, requiring no operator. Can be made adjustable.

Send us a sample of each size carton you are interested in handling and we will be pleased to recommend equipment to meet your specific requirements.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

Britain's two years' experience

(*Continued from page 40*) heavy bales. Lengths of fibre may be cut off as required, depending on bale sizes. Because a ton of Balax gives three times the yardage of a ton of baling wire, every ton used saves three times its weight in steel. Baling costs are reduced by one-fifth, having the effect of a 20 per cent extra profit on the work done. One great advantage in using the substitute is that no licence is needed as in the case of wire. However, licences to spin the amount of orders have to be applied for and the Hemp Control Department of the Ministry of Supply does not licence a greater amount than will cover a three-months' supply. It is estimated that since the outbreak of war, a tonnage of 2,300 tons of steel has been saved by the use of Balax—enough to make 153 fifteen-ton tanks. Saving in baling costs effected by users amounts to £17,000. Balax sells at £3 2*s.* per cwt. on orders of one ton or more and £3 12*s.* on orders under 4 cwt. Yardage a cwt. is 5,600 yards and breaking load on a single part is 400 lb.

What woods are best?

(*Continued from page 41*) does not mean that all species within a group are equal in every respect for containers, nor does it mean that the woods in one group are better for all containers than the woods in another group, but it does mean that the woods in each group as a whole possess outstanding characteristics that make them the best for particular types of containers and conditions of service. In other words, the species within a group generally may be used interchangeably under the same specification.

To dispel any possible confusion, it should be emphasized here that the listing of the different species by groups does not carry the implication that one group is superior to another for general box manufacture. On the contrary, these groupings were made with the purpose of encouraging the broader use of local species for boxes and crates by pointing out which species are generally alike in various characteristics, so that all can be used most efficiently with proper nailing.

Instances have recently come to the Laboratory's attention in which woods of Group 1, for example, were quite mistakenly assumed to be generally superior to woods in Group 2 for box manufacture. The numerical designation used carries no such implication. The truth of the matter is that, with recommended nailing schedules, Group 2 woods make boxes which can be fully as satisfactory as those built of Group 1 woods. The principal difference between the two groups, from a box manufacturing standpoint, is that Group 1 woods are generally easier to nail without splitting than Group 2 woods; Group 2 woods, therefore, require smaller nails driven more closely together, but on the other hand, being harder, are stronger than Group 1 species. Likewise, species in Groups 3 and 4 have special advantages which, by proper handling, can be turned to advantage in construction.

Group 1 embraces the softer woods of both the coniferous and broad-leaved species. These woods are relatively free from splitting in nailing, have moderate nail-holding power, moderate strength as a beam and moderate shock-resisting capacity. They are soft, light in weight, easy to work, hold their shape well after manufacture and are easy to dry.

They include: aspen, bigtooth; aspen, quaking; bald cypress; basswood, American; buckeye, yellow; butternut; chestnut, American; cottonwood, black; cottonwood, eastern; cucumber tree; firs—alpine, balsam, California red, grand, noble, Pacific silver, white; magnolia, southern; pines—eastern white, jack, lodgepole, ponderosa, red, sugar, western white; red cedar, western; spruces—Engelman, red, Sitka, white; white-cedar—northern and Port Orford; willow—black and western black; yellow poplar.

Group 2 consists of the heavier coniferous woods and includes no hardwood species. These woods usually have a pronounced contrast in the hardness of the springwood and the summerwood. They have greater nail-holding power than the Group 1 woods, but are more inclined to split and the hard summerwood bands sometimes have a tendency to deflect the nails and cause them to run out at side of piece.

These woods include: Douglas fir; hemlock, eastern and western; western larch; pines—Loblolly, longleaf, pitch, pond, shortleaf; table mountain; tamarack.

Group 3 is composed of hardwoods of medium density. No coniferous species are included. These woods have about the same nail-holding power and strength as a beam as the Group 2 woods, but are less inclined to split and shatter under impacts. Group 3 species are the most useful woods for box ends and cleats. They also furnish most of the rotary-cut lumber for wire-bound and plywood boxes.

These woods are: black and pumpkin ash, American elm, silver maple, sweetgum, American sycamore, black tupelo, water tupelo.

Dense hardwood species comprise Group 4 woods. They have both the greatest shock-resisting capacity and the greatest nail-holding power, but because of their extreme hardness they present difficulties with respect to the driving of nails and also have the greatest tendency to split at the nails. They are the heaviest and hardest domestic woods and are quite difficult to work. They are especially useful where high nail-holding power is required and many of them make excellent rotary-cut lumber for wire-bound and plywood boxes.

They include: green and white ash, American beech, sweet and yellow birch, rock and slippery elm, hackberry, hickory, black and sugar maple, red and white oaks.

Tests at the Forest Products Laboratory have shown that the most common defect in wood box construction is inadequate nailing. Attempts to strengthen boxes by the use of thicker lumber without regard for nailing frequently succeed only in wasting lumber. Often the right answer involves the use of more nails.

The kind, size and spacing of nails are vital factors in good box construction. Cement-coated nails, for example, have been found to have considerably more holding power than plain nails. The penny of the nail to be used is determined by the thicknesses of the ends, sides, top and bottom of the box and the species of wood in which the point of the nail is held after driving.

Experience has shown that the number of nails specified in these tables does not cause excessive splitting at the ends. Joints are still the weakest factors in any type of wood construction, whether it be a warehouse or a box. No matter how good the design, how carefully fitted the parts, how well calculated the stresses, the joint will not do its job unless adequately fortified with the right sizes, numbers and spacing of nails. That these weaknesses still afflict wood boxes has been demonstrated in thousands of laboratory tests during the past three decades—tests which clearly showed faulty nailing to be the Achilles heel of otherwise strong, well-designed containers. It is to be hoped that, in the critical hours ahead, no one shall have to exclaim, as did the harried monarch whose horse threw a shoe, that for want of a nail a kingdom was lost.

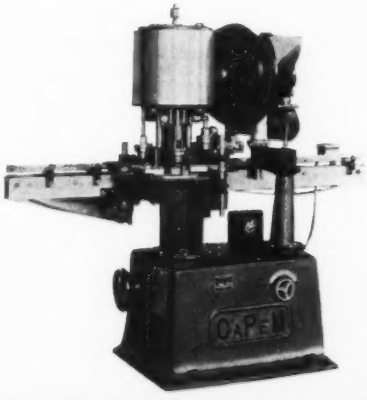
Food for the Guns or for the Gunners . . . .

CONSOLIDATED SPEEDS UP BOTH!

Whether it is building precision weighing equipment for the Ordnance Department, or a heavy duty bag closer for an Army food contractor, Consolidated is putting forth an "all out" effort to do its share toward ultimate victory.

We are all in the front line in this war. The Pacific Islands may hold the spotlight today, and the Atlantic Seaboard tomorrow. No one knows where the enemy may strike next. We all must so co-ordinate our efforts that wherever he strikes, he'll get a warm reception.

To that end, the Consolidated organization is giving first preference to Defense needs. We are sure that even our customers in non-defense activities would not have us do otherwise. But we are making an earnest effort also to supply at least a part of the essential needs of our non-defense customers as well. If your order has taken longer than you feel it should have, try not to be impatient. Remember, that unless the needs of our Armed Forces, whether for ammunition or food, are met fully and promptly we may not have any use for the non-defense equipment we so urgently need now.



CAPEM SCREW CAPPING EQUIPMENT

Efficient, high-speed automatic machines for applying screw caps to jars, cans, or bottles of any size or shape. 1, 3 and 4-spindle models. Some have helicoid worm feed for handling liquids at high speeds. Others have both helicoid worm feed and adjustable head to accommodate a wide range of container sizes.

CONSOLIDATED
PACKAGING MACHINERY CORP.
1400 WEST AVENUE — BUFFALO, N. Y.

LUSTEROID

THE many re-use possibilities of Lusteroid rigid cellulose vials and tubes give these packages an added "life" with consumers that means increased re-sale for products packaged in them. The original label is processed integrally with each Lusteroid package and lasts as long as the container itself. Every time the consumer sees the package—and each Lusteroid container lends itself to constant use in handbag, pocket, shelf or hand—he will be reminded of the identity of the original product.

Lusteroid packages have many other advantages, among which are: exceedingly light weight, unbreakability, good dimensional stability, resistance to metals, unlimited *integral* color possibilities, and many other fine qualities.

A note or phone call will bring an answer to your packaging problem.

LUSTEROID CONTAINER CO., Inc.

Formerly Lusteroid Division of the Sillcocks-Miller Company

10 Parker Avenue, West • South Orange, New Jersey

New air-tight box

(Continued from page 86) An interesting feature of most of the present installations of the new processing equipment is a special sealing machine which performs both the top and bottom closures. This turret type machine with a rotary action bottom seals a line of uncoated cartons on one level and on the other performs, at the same time, the final heat "flow-sealed" closure to another line of filled coated cartons. Although this makes for greater economy in production, it is optional. A standard-type bottom sealer may be used and the final top closure may be done on a straight-line sealer if desired.

It is claimed that this new process offers decided economies over any comparable method of moisture-proof packaging from the standpoint of materials and labor cost. Almost any grade of folding box board may be used if given a simple treatment to insure proper surface and appearance. Because of the transparent nature of the coating material and its reflection-preventing surface, attractively printed cartons may be used with the assurance of complete visibility wherever they go. By the use of the special rotary sealer and coater described above and an automatic filling machine, only two operators are required in the production line to handle the carton from its "knocked-down-flat" form through the bottom sealing, coating, filling and top sealing operation ready for shipment casing. One operator squares up the flat cartons and places them on the bottom sealer mandrels. The other receives the set up cartons from the bottom sealer automatic discharge and places them on the coating machine conveyor. All other operations are automatic.

In actual commercial production last season, one major frozen food packer using this process claimed a packaging material and labor savings of 50 per cent over his former packing method for this type of food.

An interesting demonstration of moisture-resistant qualities was shown in a recent comparative test in which these new cartons and four other types of commercial moisture-resistant containers were filled with anhydrous calcium chloride and stored in a humidor for four weeks at 75° F. and 65 per cent relative humidity, then three more weeks at 95° F. and 95 per cent R. H. At the end of this period the calcium chloride in the new thermoplastic-coated carton had absorbed only 0.8 per cent moisture while in the other packages it had gained from 3 per cent to 9 per cent moisture. Other interesting tests conducted at Massachusetts Institute of Technology on gas diffusion rates through the new carton showed it to be impervious to oxygen, nitrogen and other inert gases.

These results would indicate that these new cartons offer more protection against dehydration of moist foods, hydration of dry goods, quality deterioration due to oxidation and the loss of vitamin content than any other packages, except those made of metal or glass.

The qualities of resistance to moisture and gas transmission, durability and economy of mass production made investigation of this new process by Army officials inevitable. In addition to the Field Ration package, the Quartermaster Corps' Subsistence Research Laboratory is testing the carton for other possible uses, which include dehydrated and other powdered foods as well as the Emergency Field Ration "D." Other branches of the Army are testing modifications of the carton for ammunition and chemicals. The Federal Surplus Commodities Corp. is considering its use for shipment of powdered eggs to Britain and other lend-lease recipients.

Government restrictions on the use of rubber and potential shortages of certain waxes together with increased military demand, of course, limit new installations of the process to projects directly connected with national defense at this time. After the emergency it is believed that the process will gain wide-spread use in such fields as frozen foods, breakfast foods, dehydrated foods, coffee, tobacco, chemicals and many other products where protection against change in moisture content is vital.

Credit: Package and special machinery developed by Container Corp. of America. Thermoplastic coating compound manufactured by Dewey & Almy Chemical Co.

Testing properties of paper

(Continued from page 62)

Conditioning test specimens

5. The sealed box specimens shall be conditioned before testing in accordance with the Tentative Method of Conditioning of Paperboard, Fibreboard and Paperboard Containers for Testing (A.S.T.M. Designation: D 641) of the American Society for Testing Materials.

Moisture content

6. The moisture content of the specimen at time of test shall be determined in accordance with the Tentative Method of Test for Moisture in Paper (A.S.T.M. Designation: D 644) of the American Society for Testing Materials.

Procedure

7. (a) In making a compression test, the box specimen shall be centered on the bottom platen of the testing machine, so as not to incur eccentric loading, and the top platen shall then be lowered until it comes in contact with the specimen. An initial pressure of 50 lbs. shall then be applied to cause the specimen to make a definite contact with the platen. The distance between the platens at this time shall be recorded as zero deflection. With this 50-lb. load on the specimen, the graphic recorder pen shall be set at zero deflection. If the compression equipment is not fitted with a graphic recorder pen, the load on the dial shall be read at every 0.1-in. deflection. The load shall be applied at a speed of travel of the platen of $^1/_4$ to $^3/_4$ in. per min., or at an equivalent loading rate in pounds per minute until failure point and maximum loading point have both been reached.

(b) For each type of loading, critical points shall have been established and the compressive load at these critical deflections shall be recorded, together with the maximum load and deflection.

(c) By knowledge of the component materials, by observation of the box specimen under load, and by critical dissection and examination of the specimen after failure, logical reasons should be evident for the particular performance of of any specimen or group of specimens.

Report

8. The report shall include the following:
   (1) Moisture content of the specimen at time of test,
   (2) Type of compression head used,
   (3) Complete information as to the material, specifications and construction of the box, and
   (4) Other information pertinent to material tested.

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UNION –
The State of Being United
...Funk & Wagnalls

Just about the time the Union of the States was reunited, Union Paste started its own unification project. And we've been making adhesives to do the job—*your* job—ever since.

Our chemists have compiled more than 700 formulas and we expect to have them compile 700 more in the next 80 years to fill the special needs of customers. We're not the largest company in the business, but we give way to no one in the size and completeness of our laboratory and the experience and skill of our technicians.

There's something in the New England way of doing things, too, that helps keep our customers satisfied. Perhaps it's the way you might like to work.

Established 1866

Union Paste Company

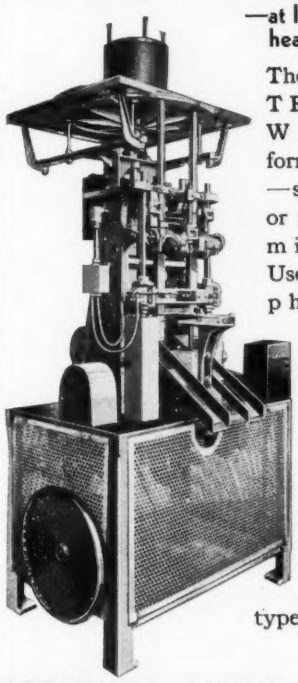
1605 HYDE PARK AVENUE • HYDE PARK, MASS.

FILLING • PACKAGING • WRAPPING MACHINES

speeds to suit your needs— ★ 15-30-60-120 per minute!

A SPARKLING TRANSPARENT PACKAGE

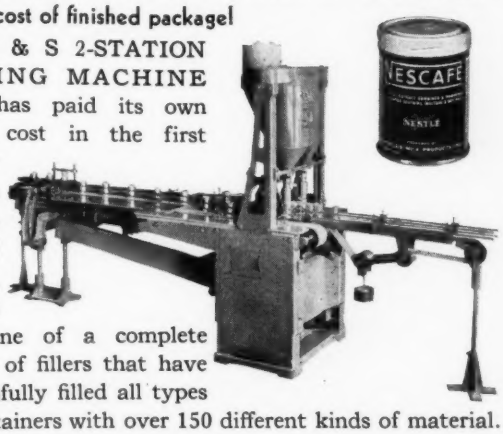
—at lower cost than any other heat-sealed package!



The S & S TRANSWRAP forms—fills—seals—60 or more per minute! Uses "Cellophane," Pliofilm or other heat-sealing films from the roll ...plain or printed. Makes a tight package, yet serrated or notched cut-off makes it very easy and quick to open. Package may be either the pillow type, or with gusset folds.

ACCURATE FILLING SAVES MATERIAL

lowers cost of finished package!



The S & S 2-STATION FILLING MACHINE often has paid its own entire cost in the first year of its operation! And, it's just one of a complete family of fillers that have successfully filled all types of containers with over 150 different kinds of material. There's one for your problem—and it will pay to ask about it.

Complete priority data with your order or inquiry, please!

STOKES & SMITH Co

PACKAGING MACHINERY PAPER BOX MACHINERY
FRANKFORD, PHILADELPHIA, PA.

Pineapple to canned fruit

(*Continued from page 83*) in the method of routing processed cans from cookers to coolers. From pre-vacuumizers, syrupers and double seamers, the cans are conveyed automatically to the cookers, whence the cans emerge to an inclined chain conveyor direct to the coolers. In all of these movements there is not a break in the automatic line.

Another interesting conveying application is the tray loading device used to handle the flow of cans as they emerge from the cooler, for subsequent transport to the labeling lines. When the required number of cans has been deposited on to the tray, a line gate opens, permitting the tray load to be placed on a conveyor for routing to the warehouse.

The Honolulu plant is reputed to have one of the fastest labeling operations on record, some of the smaller cans going through as fast as 1,400 per minute. The labeling machines installed in the plant have been especially geared up by "Dole" engineers to do a fast job. The empty carton feed has been synchronized with this fast operation. Inclined gravity conveyors direct the empty cartons from overhead storage space. When filled with cans, the cartons are routed to roller conveyors placed at right angles to the labeling lines. In the warehouse the cartons are stacked ceiling high by lift trucks. The same type of trucks are also used to stack trays of cans.

Credit: Labeling machines by Standard-Knapp Corp. Lift trucks by Yale & Towne Mfg. Co. Double seamers by American Can Co. Cookers and coolers by Food Machinery Corp. Conveyors, "ginacas" and slicers by Hawaiian Pineapple Co.

Pros and cons—grade labeling

(*Continued from page 48*) This test came about as the result of one of our large retail grocers questioning the price on our top grade being out of line with chain competition. It was very easy to show him that it was worth the additional amount of 2¢ per can, if not more.

"Instead of grade labeling being of educational value to consumers, we honestly believe that it would result in just the opposite direction. Unbiased surveys indicate definitely that consumers buy canned foods by brands because of the confidence which they have in the particular brands—but if grade labeling were adopted, the housewife would have every reason to believe that Grade A is Grade A, or B is B, regardless of brand, which would almost by necessity, in this highly competitive era, force many distributors to lower their standard of quality to meet the competition of those who are satisfied to sell a grade which just barely makes the grade."

From a Chicago wholesaler: "The question of grade labeling versus descriptive labeling seems to me to have been completely covered by the four articles in the November issue of Modern Packaging."

From a nation-wide voluntary chain: "We are very, very much opposed to grade labeling on foods, but are very much in favor of descriptive labeling."

From a chain store executive: "Our own position is still one of middle ground, in which we feel that grade labeling is both desirable and possible, but cannot be accomplished without a greater degree of cooperation on the part of the producer. I feel very definitely that if the National Canner's Assn. would adopt a more constructive attitude on the subject, it could be made practicable, in spite of the difficulties which exist."

Washington round-up

(*Continued from page 37*) sales at prices higher than those which prevailed between November 15 and December 6.

Importers and dealers in natural resins and shellac were requested by OPA not to raise prices above the levels of December 5, pending formulation of a permanent plan for controlling prices of these imported materials.

At the request of OPA, manufacturers of slack wooden barrels agreed to reduce the prices of hard wood staves and pine headings.

Waste paper price schedule amended

An amendment to the waste paper price schedule, No. 30, abolishing "old kraft corrugated containers" as a separate grade in the schedule, has been reported by Price Administrator Leon Henderson.

The amendment redefines this type of scrap as used containers of kraft or any other paper substance. The price for the redefined grade was established at $16.50 per short ton, f.o.b. point of shipment.

The amendment was made, Mr. Henderson explained, because used containers of 90 to 100 per cent kraft are becoming increasingly scarce, due to the growing use of materials other than kraft as corrugating mediums and liners in corrugated containers and because there has been a considerable upgrading of containers of less than 90 per cent kraft because of the special designation in the schedule of old kraft corrugated containers.

Tin and lead foil

Revocation of the tin and lead foil order, L-25, was announced by the Division of Priorities on January 15. The action was taken, it was explained, because the order was no longer necessary. Amounts of tin and lead which may go into the production of foil have been limited by the orders on these two metals—M-42-a and M-38-c. Under these orders only 50 per cent of the average amount used last year may go into the production of foil until April 1. After that date, no tin or lead may be used for the manufacture of foil.

Special emblem for U. S. food

A special emblem—the American eagle poised on guard above a cargo ship—has been designed by Walt Disney and will be available to identify United States food products wherever they are sent throughout the world, according to announcement by the Department of Agriculture. The emblem was presented to Secretary Claude R. Wickard by the designer in recognition of the vital part United States food is playing on both the home and foreign war fronts of the world. The new emblem, available for voluntary use by packers, is expected to become a familiar part of the labels for food containers. Copies of the design have been mailed to several thousand processors who are contracting with the Department of Agriculture to furnish food supplies needed for Lend-Lease and other supply needs of the Food-for-Freedom program.

For "PRIORITY"
For POST-WAR **PACKAGING**

TODAY *AND* TOMORROW YOU CAN DEPEND ON *Metal Edge*

As used by Packard Motor

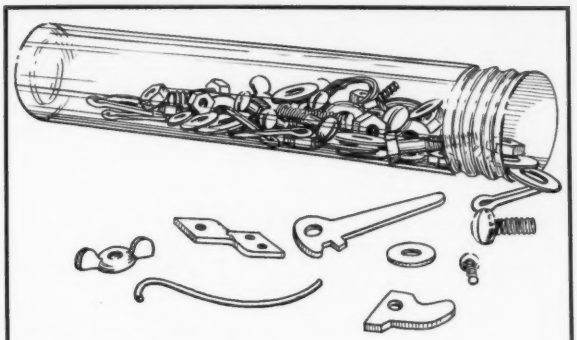
Probably no type of packaging is used more largely in defense industries. For Metal Edge paper boxes have the character and stamina to serve a war economy. While the Metal Edge *packaging method* is supremely efficient.

But, harried as you may be today, you haven't forgotten there's a tomorrow coming. Metal Edge packaging will stand many a foresighted concern in good stead then—helping them to "win the peace."

This is the time to prepare ! Let us tell you the profit-wise story of Metal Edge packaging *now*.

Send us your name and business address and we'll see that you receive the informative, lively *Metal Edge Packager* as issued periodically. You'll like it—there's no charge.

NATIONAL METAL EDGE BOX CO.
334 North 12th Street, Philadelphia
Packaging Method—Strongest Paper Box



TRANSPARENT
Shatterproof
CONTAINERS
for Machine—or Machine-Gun PARTS!

Complete visibility — and complete SAFETY; that's what CELLUPLASTIC containers assure users of these *shatterproof,* attractive, *durable* vials for small parts. Being "labeled-in-process," they cannot lose their identity!

Shatterproof Celluplastic VIALS IDEAL—for Pack or Pocket . . .

For the men who must inspect and repair machines; watches—or machine-guns; nothing equals the certainty of survival of the parts intact, like transparent Celluplastic vials. They defy handling, or conditions which would destroy glass. . . . *They conserve metals*—and do a fine job for many products, right NOW!

FIRST IN CELLUPLASTICS
HYCOLOID - CLEARSITE

Test this *better* method of packing *PROTECTIVELY*

CELLUPLASTIC CORPORATION
50 Avenue L **Newark, N. J.**

Prevention of food spoilage

(*Continued from page 64*) of moisture, different materials act differently to liquid water and water vapour.

A water-proof, grease-proof and air-tight wrapping material has been prepared by B. F. Goodrich Co., of Akron, Ohio. It is termed "Koroseal" paper and consists of koroseal (a synthetic elastic resin) applied to 40-lb. kraft paper. It flexes repeatedly without cracking, softens at 93° C. and can be sealed against itself at 200° C.

Actinic wrappings

With the recognition of the adverse influence of light on fatty foods many researches have been conducted into the protection accorded by wrappings designed to cut out the transmission of harmful rays of light. Examining the effect of different sources of radiant energy on the flavour and anti-rachitic potency of milk, Weckel found that energy ranging in wave-lengths from 2,600–3,100 A is less active in flavour changes than energy of wave-length below 2,600 A. Similar analysis of the radiation of the spectral region 3,100–7,000 A indicated that radiations of 3,100–3,800 A are more active in producing flavour than those of wave-length 3,800–7,000 A. In commercial practice of irradiating milk for condensing, the vitamin-A inactivating influence of the accompanying ozone is minimised by ventilation of the irradiating apparatus. During photochemical studies of rancidity, determining the peroxide values of oils as affected by selective light, Coe and Le Clerc observed that corn oil and cottonseed oil would remain free from rancidity if protected from light with opaque black paper or with green paper transmitting light delimited by wave-lengths, 4,900–5,800 A. Morgan points out that blue and invisible ultraviolet light materially accelerate the development of rancidity in such materials as potato chips, biscuits, cakes, butter, sweets, nuts and soaps, whereas other visible light, such as red and yellow, has little effect. Consequently, rancidity-retarding wrapping may be of any visible colour except blue. On this basis has been developed a yellow, transparent, cellulosic sheeting, known as "Sylphrap R. R. Old Gold." The 0.001 in. has a high visible transparency but a complete ultraviolet opacity.

Enough is now known to infer that both ultraviolet and visible light greatly accelerate the oxidation of fats, the former being the more effective. The most active portion of the visible spectrum is the yellow-orange region at about 6,000–6,500 A and the green between 5,000–5,500 A; the least active is the far red region. Carpenter recommends green glass for bottles to protect fruit juices. In his research, flavour and turbidity of the juices were altered by light acting on the colloidal constituents present. Work published from the Heinz laboratory deals with the effectiveness of colored samples of cellophane in retarding the oxidation of olive oil. The factors influencing protection are listed as: the quantity of light transmitted, especially ultraviolet light; the stability of the dye pigment in the sample of cellophane to the action of light. The samples showing the greatest protection were deep red, orange, violet, grass-green and yellow.

The patent literature reveals some interesting ideas for protection against light. Foils of cellulosic character or of gelatin are impregnated with esculin or a coumarin derivative (D. R. P. 638, 619). The transparent coating may be combined with an organic dye that renders it opaque to light of 2,900–4,700 A and non-absorbent of light of wave-lengths other than this range (B. P. 453,438). The light-filtering wrapping of a cellulosic nature (U. S P. 2,062,179) may contain an amino-benzophenone for absorbing light rays of 3,500–3,700 A.

Colors on machinery

(*Continued from page 88*) Good seeing for an operator depends upon four factors—brightness, color contrast, size of object and time of operation. Of these, color contrast has been neglected in previous studies. Consequently, it served as the focal point of the du Pont-Philadelphia Electric research.

Illuminating engineers have made available perfection, or certainly nearly so, in the factor of brightness. The size of the object under fabrication is not a variable subject to control. The time required to perform a given operation on a machine has received split-second scrutiny from production experts who would be quick to agree that efficiency varies in accordance with the degree of vision provided by the other three factors. However, scientifically determined data on all four factors, incomplete as they have been on the score of color contrast, have seldom, if ever, been added to arrive at a sum that was capable of translation in terms of better vision. The research at the Philadelphia Electric machine tool repair shop in Philadelphia did that.

It is possible, of course, to have too much, as well as too little brightness and contrast in a combination to furnish ideal seeing conditions. Too much light means glare. Too severe a color contrast results in confusion. There is more to the use of colors and light then merely dressing up machinery to impart the impression of shiny cleanliness and sunshine. The shade of the colors used is important.

In order to duplicate average conditions, two machine tools in a typical repair machine shop doing a wide variety of work were selected for the du Pont-Philadelphia Electric color and light tests. Since colors vary under different types of light, both incandescent and mercury-lighting equipment was installed for the machines under observation. The original battleship gray of the machines, which is very low in ability to reflect light, was painted with colors having good light-reflecting characteristics. Each machine was completely repainted every second Friday with one of these semi-gloss, oil-resistant, washable machinery paints.

Over a period of several months, the following colors were tried out—aluminum, light gray, light green, yellow, light blue, light buff.

Photometric readings were recorded of the light falling on the working surfaces of the machines and of the light reflected from them. To determine the psychological effect of the various colors upon the workers, a simple questionnaire was put before a group of 15 men, including two foremen. They were asked these six questions after each color had been in use for a time:

1. Is the new paint color more or less tiring than original?
2. Can you see better than with original?
3. Can you work faster than with original?
4. Is it easier to do better work than with original?
5. Do you need more light?
6. Do you think it's safer than before?

The results of the questionnaire and the reflection-brightness measurements were correlated with the time operating efficiency of the workers performing standard tasks at their machines. The colors which had the highest rating were

light buff and light gray. This expedition into the unexplored field of improved vision by color contrast was, at this point, still essentially theoretical. The maintenance department was yet to be consulted. The idea of painting machines light buff might be impractical, which is just what the maintenance men promptly said it was.

As a compromise, all machines were painted a medium gray with light buff around the working area. The purpose was to utilize the light-reflecting possibility of the light buff finish and still satisfy maintenance requirements. Surprisingly, the combination performed better than any of the solid colors. This two-color system, the collaborating companies reported, has been in use since September 1939. Mechanics are so pleased with its benefits, they tend naturally to keep clean the light buff areas, where accident hazard is spot-lighted.

Advanced field investigations are currently being conducted in several industrial concerns and it is expected that more complete data will be available in the near future. However, results to date are sufficiently conclusive to warrant plant managements giving serious thought to adopting the "three-dimensional seeing" idea. It has been a production-accelerator, an accident-reducer and a morale-builder in tests confined thus far to machine tools and there is every reason to have confidence in the value of its adaptability for factory machinery in general.

Technicians in du Pont's Finishes Division are enthusiastic over their discovery. They have named the winning paint colors "spot-light buff" and "horizon gray." Now being offered are a gratis technical service in the field and a color motion picture, depicting this new method of harnessing brightness and color contrast for better vision for the men operating America's industrial machines.

Two improving touches to applied "three-dimensional seeing" have been incorporated very recently—the designation of particularly dangerous places with fiery red bull's eyes or arrows, and the highlighting of knobs, buttons, levers, etc., frequently used in operations with a blazing color such as lavender. The object, of course, is to keep these all-important parts in the worker's mind's eye, set them forth in still sharper contrast to a background, so that when reaching for them with the semi-automatic gesture soon acquired by operators, there will be less likelihood of fumbling and consequent injury.

Holiday dress—bakery products

(Continued from page 45)

has experimented with gift packaging for more of its foods. In each instance, increased sales and profits have proved the great value of this kind of packaging. This year the company feels that its program of holiday packaging has been completely rounded out with a variety of containers designed in the modern trend to appeal to popular tastes and supplemented by toy packages with their special appeal to children. It is undoubtedly true that war conditions may make gift packaging, such as represented by the containers illustrated, unfeasible. However, when normal times return, the company states, this year's packaging achievements will make a good point of departure for any future program.

Credits: Food warmer, United States Mfg. Corp. Platter, Kromex Corp. Lazy Susan and cake cover, Kromex Corp. and Indiana Glass Co. Flower pot, Revere Copper and Brass, Inc. Pottery, Western Stoneware Co. Push-pull toy, The Dolly Toy Co. Boot and lantern, Pulp Reproduction Co.

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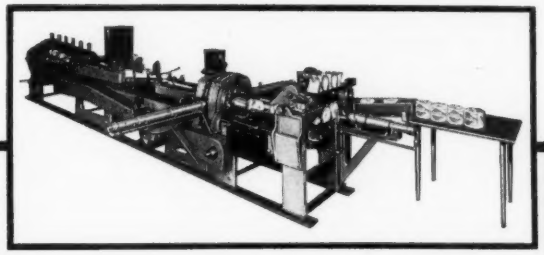

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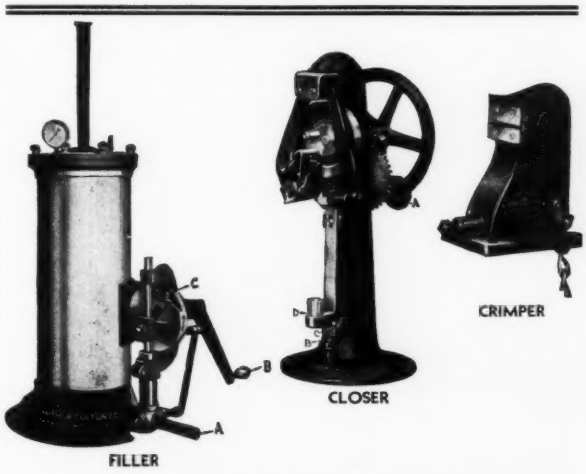

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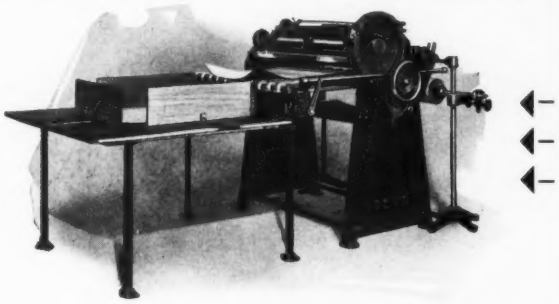

The Beck Sheeter

will release hands for other work, because thru its great simplicity, it needs very little of the operator's attention, once it is set. Especially when equipped with **ELECTRIC EYE CONTROL** are you freed from human element in your sheeting work. Amazing degrees of accuracy in "spot sheeting" work, plus profitably increased outputs. The need for doing your own sheeting is probably more acute now than ever before in your business history, and this because of present conditions.

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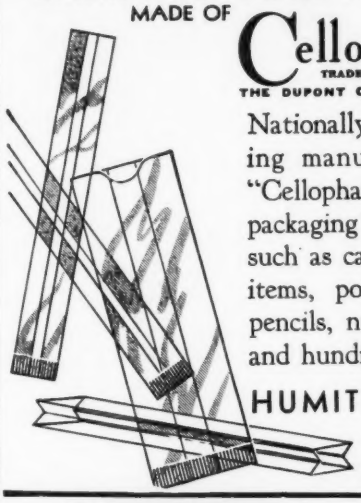

Nationally known as the leading manufacturer of small "Cellophane" containers for packaging light weight articles such as candy, cigars, carded items, pocket knives, pens, pencils, nut meats, fish lures and hundreds of other items.

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"It gives me pleasure to advise you that your organization has been chosen to receive the flag of the Bureau of Ordnance and the Navy 'E' pennant in recognition of your outstanding efforts in the production of ordnance materiel vital to our national defense. Recent events have made this award of even deeper significance than any which have been made in the past."

Secretary of the Navy Frank Knox, in a letter to Monsanto.

"E" stands for teamwork!

Among the crews of Uncle Sam's warships and naval planes, the Navy "E" is one of the most coveted and respected honors the men of a single gun turret or an entire battleship can win.

It is a symbol, not of individual brilliance, but of championship teamwork . . . teamwork that only long, gruelling hours of actual practice could perfect.

The same tradition governs the award of a Navy "E" to an industrial plant.

The "outstanding jobs" which win an Ordnance Bureau flag and "E" pennant are not the work of one brilliant "lone wolf" in the research department—or a single, capable executive. They are the result of teamwork that only starts with the quarterback in the front office and includes every man in the organization to the policeman on the plant gate . . . teamwork that only long years in the peacetime service of industry could perfect to the peak of efficiency demanded by a nation at war!

Monsanto is proud to fly the Navy "E" in recognition of past performance . . . glad to accept the responsibility it imposes for future performance. MONSANTO CHEMICAL COMPANY, PLASTICS DIVISION, SPRINGFIELD, MASSACHUSETTS.

MONSANTO PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

UP TO OUR NECK

- - - but our feet are still on the ground

Boxboard and folding cartons have shouldered a huge war-time packaging job. Defense needs alone are enormous. For instance: a sizable portion of our production fills defense requirements. This, in addition to the increased demands of our old customers, really keeps us humping. We are working day and night to produce more boxboard . . . more cartons.

However, the rush of additional business has not swept us off our feet. We, like you, are thinking of the future. When normal times return . . . when we are again able to offer you all the Michigan Cartons you desire...we expect, *through continual research today*, to offer you finer folding cartons—cartons that will be even more economical, offer greater protection and beauty.

Meanwhile the services of our packaging staffs are yours for the asking. Our years of practical experience may be a real help to you today. Perhaps we can suggest ways to streamline your present package for greater performance and economy. Or, why not utilize the "know how" of our practical package-men for suggestions that may be invaluable to your future packaging program? They will study your product and present package setup—suggest new packaging schemes for tomorrow's expanding markets.

We welcome an opportunity to work with you. Your inquiry will receive immediate attention.

Michigan Carton Co.

BATTLE CREEK, MICHIGAN

Frozen IN PLASTIC

PROGRESSIVE package fabricators are turning their attention to the development of plastic products that have special significance today. They know the need for new materials is great—both to replace strategic metals and to maintain our supply of necessary equipment for defense and civilian activities. Many of them have already seen the opportunity to convert their present machinery to new uses.

Typical of these advanced applications is the plastic ice cube tray. Now we actually have a plastic "package" for ice cubes with the ice frozen in individual and removable cups. The cubes are easily released with but slight pressure, and as many cubes as needed—one or a dozen—are quickly available.

Outstanding characteristics make ETHOCEL* Sheeting ideal for this and many other difficult plastics applications. It is strong, tough, odorless and imparts no taste. Its use for products of special importance during the emergency will no doubt continue to expand as designers and manufacturers explore the seemingly inexhaustible possibilities.

NEW APPLICATIONS NOW POSSIBLE FOR PACKAGE FABRICATORS

MANY NEW plastic applications important to national defense and national economy are now possible for package fabricators. ETHOCEL Sheeting, Dow's remarkable transparent packaging material, is playing an important role in this expansion into new markets.

ETHOCEL Sheeting is made of Ethylcellulose, the toughest cellulose material commercially available. As a result, it can take the severe punishment of constant handling. Actual tests show that ETHOCEL Sheeting retains its strength and flexibility at temperatures as low as 50° below zero. There is no odor and no taste is imparted. Prolonged exposure to light causes no discoloration. Its electrical properties indicate important applications as an insulating material.

These characteristics and many more make ETHOCEL Sheeting useful for a wide variety of needed products. Why not investigate its possibilities today? Then check your equipment and see what it can produce to help meet current needs. Write to the Plastics Sales Division for full information.

Easy to Fabricate!

Even when ETHOCEL Sheeting arrives at your plant in subzero weather, no preconditioning is necessary before you begin fabrication. This saves valuable time and speeds up production.

ETHOCEL Sheeting is not embrittled by heat—can be riveted, stapled or punched without cracking—permits deep draws—can be scored and crimped with metal without breakage.

*Trade Mark Reg. U.S. Pat. Off.

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Ethocel Sheeting

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